American Gas Association

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Gas Facts

1983 • A Statistical Record of the Gas Utility Industry

Department of Statistics

gas facts

1983 DATA

■ ENERGY RESERVES ■ NATURAL GAS SUPPLY
■ UNDERGROUND STORAGE
■ DISTRIBUTION AND TRANSMISSION
■ ENERGY CONSUMPTION
■ CUSTOMERS ■ SALES ■ REVENUES
■ PRICES ■ APPLIANCE AND HOUSING DATA
■ FINANCE ■ PERSONNEL DATA

■ GLOSSARY ■ INDEX

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GAS FACTS
1983 DATA

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AMERICAN GAS ASSOCIATION

The American Gas Association assumed its present status as the gas utility industry trade association in 1927, after a merger of two predecessor organizations. It renders assistance to the gas utility industry so that the industry may serve its customers more efficiently. Dependence is placed upon the voluntary cooperation of gas companies and established committees composed of representatives from these companies.

The Association recognizes the need for factual information regarding the gas industry for the use, not only of industry organizations, but also interested outside publics. Its statistical efforts are a vital part of this function, and the publication of Gas Facts is one result of these efforts. The statistical activities of A.G.A. are performed by the Department of Statistics with guidance by the Statistics and Related Economics Committee.

1984-85

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INTRODUCTION

GENERAL

This publication contains detailed statistics for 1983 and summary statistics for 1960–1982 for the gas utility industry which by definition, consists of the companies engaged in natural gas distribution and transmission. The publication also contains relevant data on the gas producing segment of the industry and key statistics on other energy industries.

Production data of the gas industry, and pertinent other energy industry data, are also included. Gas volumes are expressed in millions of cubic feet and in British thermal units (Btu) to permit direct comparison with other energy data. A conversion table is included as Appendix B.

Appendix C contains a sample listing of gas utility companies according to their classification as distribution, transmission, integrated, or in some cases, combination companies. These classifications are defined in the glossary, Appendix A. Appendix D contains consumption data gathered by the Gas Requirements Committee.

SOURCES OF INFORMATION

Most of the information contained in this volume is developed from data contained in the Uniform Statistical Report, a detailed information form prepared annually both by electric and gas utility companies. Information is also derived from reports filed with regulatory commissions, from financial publications, and from statistical reports prepared by government and private agencies. For 1983, the gas utility companies participating in the Uniform Statistical Report survey represented 97 percent of total gas utility industry sales. Data for non-reporting companies, whose sales represent the remaining 3 percent, were estimated based on recent historical experience.

Employee accident data were taken from the A.G.A. *Disabling Injury Experience of the Gas Utility Industry* report. Estimates of proved reserves of natural gas, natural gas liquids and petroleum were taken from the U.S. Department of Energy report *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves,* 1983 annual report. Since this time series only begins in 1977, A.G.A., API and CPA data on natural gas reserves, 1960–1979, are presented. Statistics on underground storage operations were developed by the A.G.A. Committee on Underground Storage. Data for gas spaceheating customers were taken from the A.G.A. *Gas Househeating Survey.* Data on new security issues, as well as related cost and yield data, were derived from various financial publications, supplemented by data provided in the Uniform Statistical Report.

ACKNOWLEDGEMENTS

Our thanks go to those companies participating in the Uniform Statistical Report information gathering effort. Their cooperation and support are the essential elements which have made this publication a primary source of gas utility industry data, and an important industry reference. The cooperation of the public and governmental agencies credited in tables is also greatly appreciated.

Credit also goes to Senior Energy Statistician Margaret Davis, Energy Statisticians Carl Pascale and Tina Murphy and Summer Intern Richard Carson. Also contributing to the effort were the A.G.A. Computer Services and Publications/Graphic Services Departments; Bob Kalisch—Director, Gas Supply and Statistics; and Patrick Curley—Manager, Statistical Services.

SECTION 1
1983 IN REVIEW

The trends established in 1980 have continued throughout 1983; gas supplies remained adequate and well in excess of demand while all consuming sectors experienced a decrease in demand which led to a drop in gas utility sales.

Reserve additions were 92 percent of gas production so that total reserves declined slightly to 200 Tcf. After setting record levels in 1982, gas well drilling activity slowed in 1983. Well completions numbered 15,628 this year, down 17.5 percent from 1982 and the lowest level since 1979. These figures indicate a leveling of supply side activities.

Distribution and transmission facilities increased to 1095.1 thousand miles of distribution main and pipeline, and storage capacity rose to over 7.7 Tcf. Thus the gas utility industry's deliverability capacity has continued to improve.

1983 consumption of total energy in the United States declined 3.8 percent from 1982 with natural gas consumption decreasing 4.6 percent. Conservation continues to play an important role in natural gas consumption. In spite of the fact that total U.S. heating degree days were the same in 1982 and 1983, the average residential gas consumption per customer decreased 7.5 percent from 1982, to 99.1 million Btus, the lowest level in over two decades.

Gas utility industry sales fell 9.3 percent in 1983 to 12,859.0 trillion Btus. Residential and commercial sales decreased 6.7 percent and 7.0 percent, respectively, from 1982 levels, while industrial sales decreased 12.1 percent.

The natural gas price to end-users rose 14.9 percent in 1983 to an average of $5.12 per million Btus. Wellhead and city gate prices rose 7.8 percent and 12.6 percent, respectively. The average residential price rose to $5.88 per million Btus, compared to $20.50 for electricity and $7.92 for number 2 fuel oil. The increases in residential prices were 18.4 percent for natural gas, 8.5 percent for electricity, while number 2 fuel oil decreased 9.0 percent.

CHART 1-1

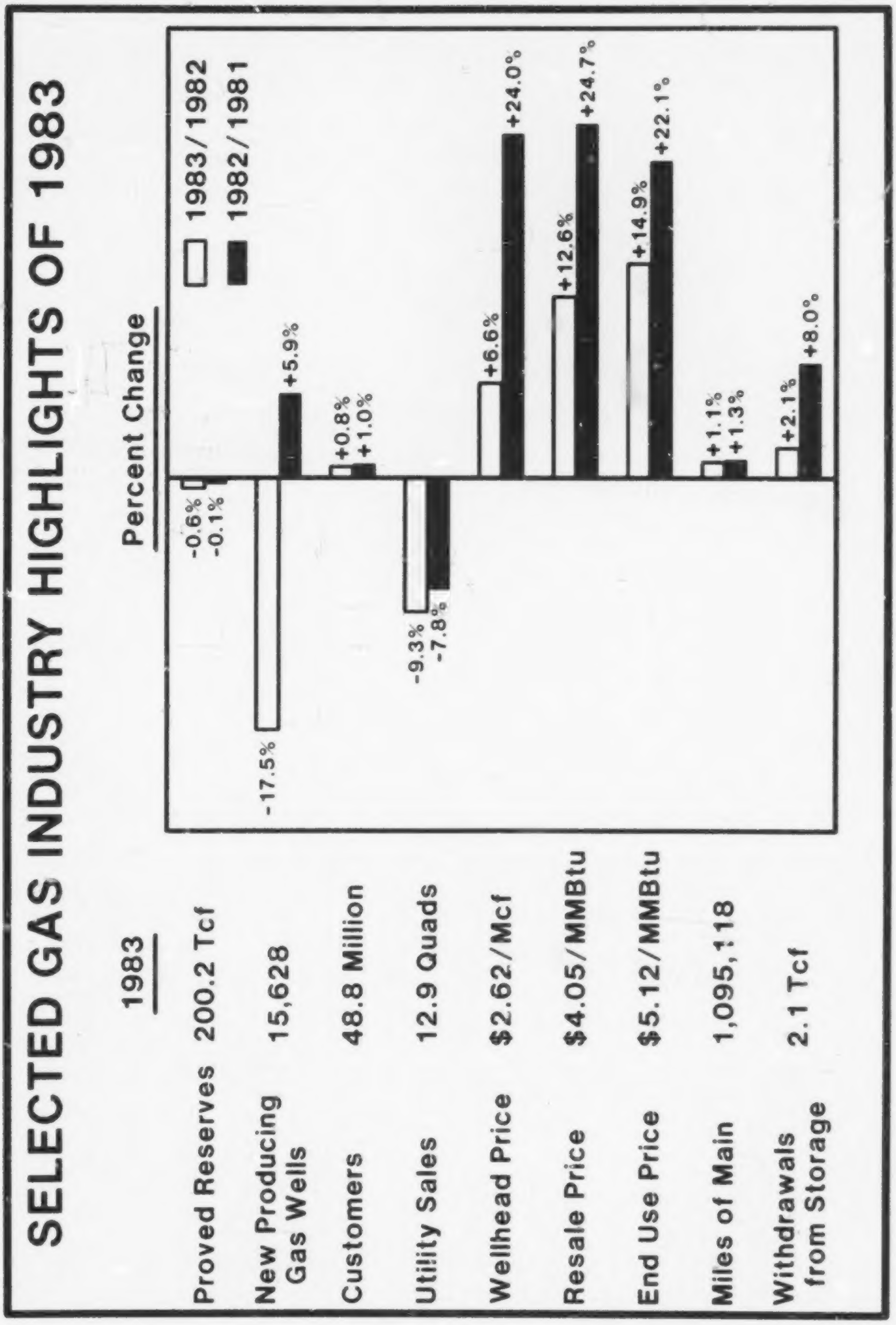

SELECTED GAS INDUSTRY HIGHLIGHTS OF 1983

TABLE 1-1

COMPARISON OF GAS UTILITY INDUSTRY CUSTOMERS, SALES, AND REVENUES BY CLASS OF SERVICE, 1983 AND 1982

(Sales quantities in billions of Btu, revenues in thousands of dollars)

	1982	1983	Percentage Change
CUSTOMERS—TOTAL*	**48,414,900**	**48,801,100**	**+ 0.8**
Residential	44,552,300	44,893,800	+ 0.8
Commercial	3,631,100	3,678,300	+ 1.3
Industrial	186,100	182,200	- 2.1
Other	45,400	46,800	+ 3.1
SALES—TOTAL	**14,182,700**	**12,859,000**	**- 9.3**
Residential	4,769,800	4,450,200	- 6.7
Commercial	2,471,300	2,298,400	- 7.0
Industrial	6,794,300	5,970,000	-12.1
Other	147,300	140,400	- 4.7
REVENUES—TOTAL	**$63,199,775**	**$65,836,669**	**+ 4.2**
Residential	23,699,899	26,173,122	+ 10.4
Commerical	11,666,099	12,658,718	+ 8.5
Industrial	27,200,015	26,314,873	- 3.3
Other	633,762	689,956	+ 8.9

*Yearly averages.

SECTION 2
ENERGY RESERVES

Prior to 1980, data on reserves of oil, natural gas and gas liquids were taken from *Reserves of Crude Oil, Natural Gas Liquids, and Natural Gas in the United States and Canada,* an annual report published jointly by A.G.A., the American Petroleum Institute (API) and the Canadian Petroleum Association (CPA). The publication of this report was discontinued after the year-end 1979 report was released in June, 1980. Since 1977 however, the Energy Information Administration (EIA) within the Department of Energy has published an annual reserves report. Data listed below and in several of the tables in this section were taken from the EIA series. For years prior to 1980 A.G.A./API/CPA data is also listed for natural gas reserves.

Reserves as of December 31

	1983	% Change 83/82
Natural Gas		
(Billions of cubic feet)		
Total	200,247	– 0.6
% of Non-Associated, estimated	70.5	+ 0.3
% of Associated-Dissolved, estimated	29.5	– 0.7
Underground Storage*	5,114	– 7.5
Gross Additions	14,523	– 16.0
Production	15,788	– 9.8
Natural Gas Liquids		
(Millions of barrels)		
Total	7,901	+ 9.4
Gross Additions	1,405	+ 60.8
Production	725	+ 0.6
Crude Oil		
(Millions of barrels)		
Total	27,735	– 0.4
Gross Additions	2,897	+109.6
Production	3,020	+ 2.4

*Not included in Total Reserves. Data taken from "The Underground Storage of Gas in the United States and Canada."

TABLE 2-1

SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1960-1979[a]

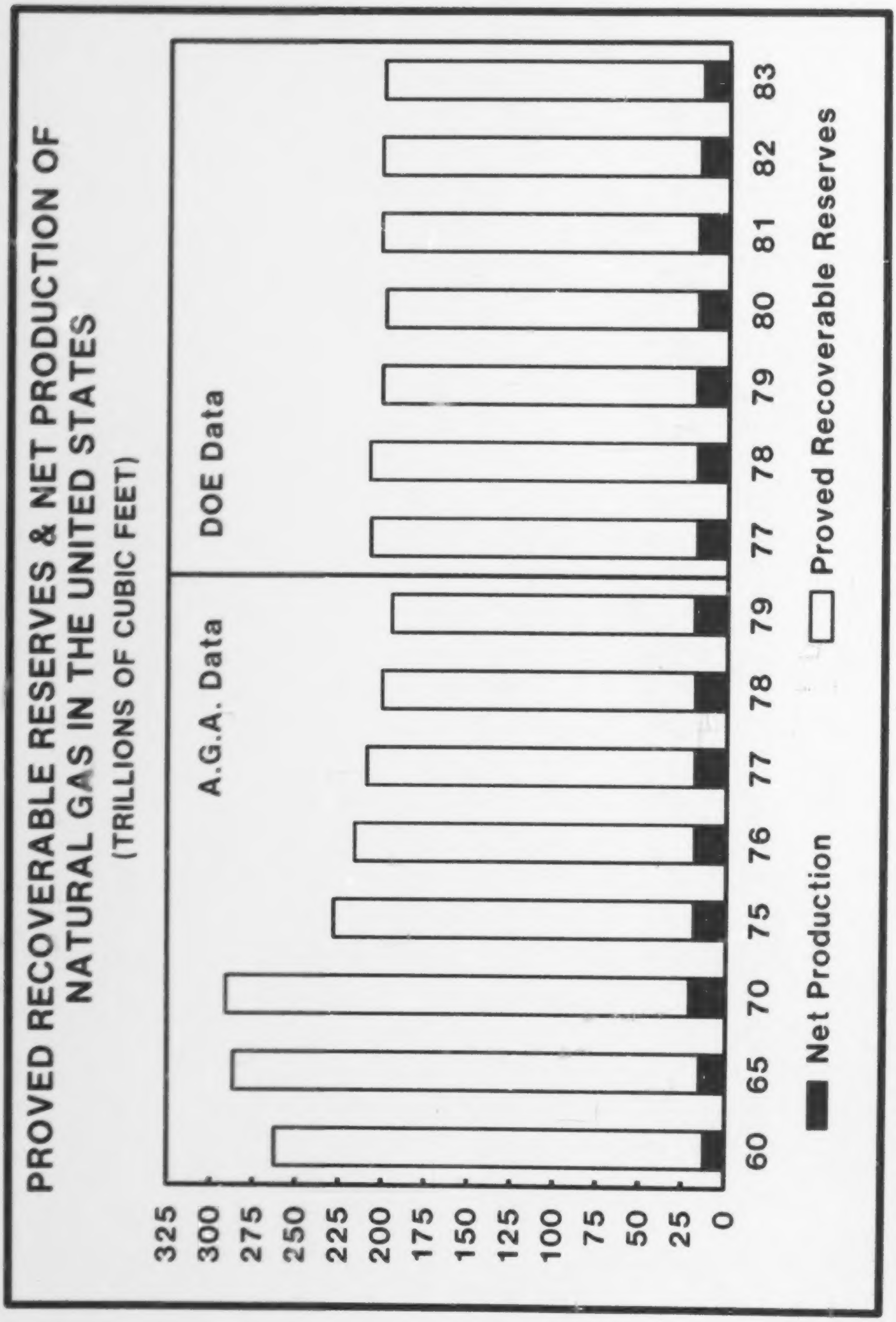
(Millions of cubic feet)

	Changes in Reserves during year										
Year	Extensions	Extensions and Revisions	Revisions	New Field Discoveries	Discoveries of New Fields and New Pools in Old Fields	New Reservoir Discoveries	Total of Discoveries, Revisions and Extensions	Net Change in Underground Storage	Preliminary Net Production during Year[c]	Estimated Proved Reserves as of End of Year	Change over Previous Year
1960	—	7,293,015	—	—	6,600,963	—	13,893,978	281,273	13,019,356	262,326,326	1,155,895
1961	—	10,258,692	—	—	6,907,729	—	17,166,421	159,544	13,378,649	266,273,642	3,947,316
1962	—	13,184,794	—	—	6,299,164	—	19,483,958	159,231	13,637,973	272,278,858	6,005,216
1963	—	12,586,733	—	—	5,577,934	—	18,164,667	253,733	14,546,025	276,151,233	3,872,375
1964	—	13,342,838	—	—	6,909,301	—	20,252,139	195,110	15,347,028	281,251,454	5,100,221
1965	—	14,775,570	—	—	6,543,709	—	21,319,279	150,483	16,252,293	286,468,923	5,217,469
1966	9,224,745	—	4,937,962	2,947,329	—	3,110,396	20,220,432	134,523	17,491,073	289,332,805	2,863,882
1967	9,538,584	—	6,570,578	3,170,520	—	2,524,651	21,804,333	151,403	18,380,838	292,907,703	3,574,898
1968	7,758,821	—	3,016,146	1,376,429	—	1,545,612	13,697,008	118,569	19,373,428	287,349,852	(5,557,851)
1969	5,800,489	—	(1,238,261)	1,769,557	—	2,043,219	8,375,004	107,169	20,723,190	275,108,835	(12,241,017)
1970	6,158,168	—	(99,721)	27,770,223[b]	—	3,367,689	37,196,359	402,018	21,960,804	290,746,408	15,637,573
1971	6,374,706	—	(1,227,400)	1,317,574	—	3,360,541	9,825,421	310,301	22,076,512	278,805,618	(11,940,790)
1972	6,153,683	—	(1,077,791)	1,462,539	—	3,096,132	9,634,563	156,563	22,511,898	266,084,846	(12,720,772)
1973	6,177,286	—	(3,474,756)	2,152,151	—	1,970,368	6,825,049	(354,282)	22,605,406	249,950,207	(16,134,639)
1974	5,847,251	—	(1,333,285)	2,013,745	—	2,151,473	8,679,184	(178,424)	21,318,470	237,132,497	(12,817,410)
1975	6,027,433	—	383,449	2,423,382	—	1,649,424	10,483,688	302,561	19,718,570	228,200,176	(8,932,321)
1976	5,337,707	—	(1,197,119)	1,421,013	—	1,993,867	7,555,468	(187,550)	19,542,020	216,026,074	(12,174,102)
1977	6,601,229	—	983,551	2,114,505	—	2,152,639	11,851,924	446,930	19,447,050	208,877,878	(7,148,196)
1978	6,733,441	—	118,436	1,719,938	—	2,014,329	10,586,144	148,733	19,311,048	200,301,707	(8,576,171)
1979	7,113,113	—	2,907,551	2,575,779	—	1,689,56[illegible]	14,285,947	239,323	19,910,353	194,916,624	(5,385,083)

a. Volumes are calculated at a pressure base of 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes the estimates of proved reserves in the Prudhoe Bay Permo-triassic reservoir discovered in 1968 and not previously included.
c. "Preliminary Net Production" equals estimated gross withdrawals less (1) gas reinjected into producing reservoirs for cycling and pressure maintenance, and (2) natural gas liquids. "Preliminary Net Production" differs from U.S. Bureau of Mines "Marketed Production" in that (1) the sources from which they are derived are different, and (2) "Marketed Production" includes natural gas liquids.
( ): Denotes negative volume.

Source: A.G.A., American Petroleum Institute and Canadian Petroleum Association. *Reserves of Crude Oil, Natural Gas Liquids and Natural Gas in the United States and Canada as of December 31, 1979.*
Note: Publication of the above mentioned source ceased with the December 31, 1979 edition. See Table 2-2 for EIA information covering 1976-1983.

CHART 2-1



PROVED RECOVERABLE RESERVES & NET PRODUCTION OF NATURAL GAS IN THE UNITED STATES

(TRILLIONS OF CUBIC FEET)

REFERENCE: TABLES 2-1, 2-2

TABLE 2-2

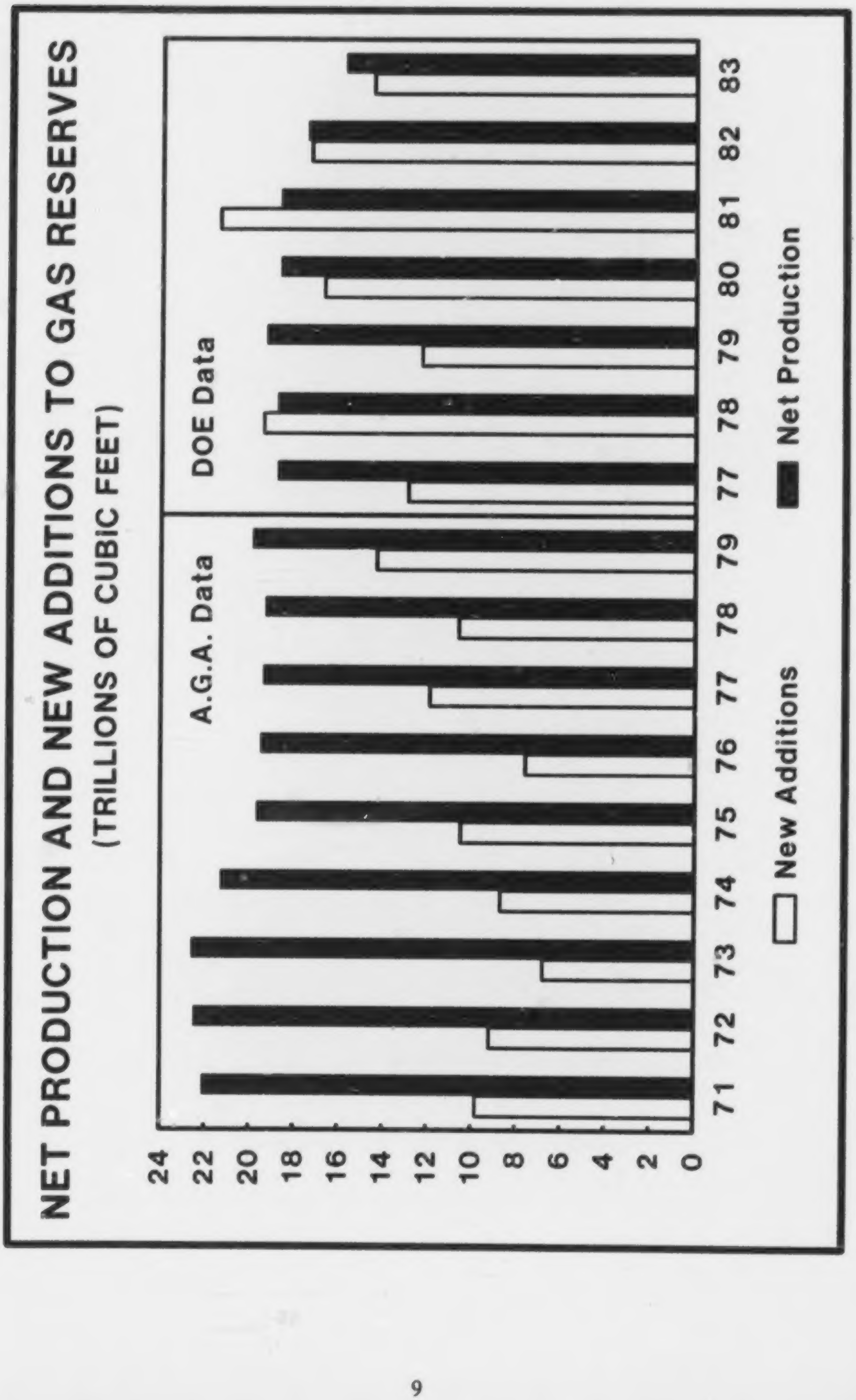
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS IN THE UNITED STATES, 1976-1983[a]

(Billions of Cubic Feet)

	Changes in Reserves During Year									
Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production Dry (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	213,278[e]	—
1977	(20)[d]	13,691	15,296	8,129	3,301	3,173	14,603	18,843	207,413	(5,865)
1978	2.429	14,969	15,994	9,582	4,579	3,860	18,021	18,805	208,033	620
1979	(2,264)	16,410	16,629	8,950	2,566	3,188	14,704	19,257	200,997	(7,036)
1980	1,201	16,972	15,923	9,357	2,577	2,539	14,473	18,699	199,021	(1,976)
1981	1,627	16,412	13,813	10,491	2,998	3,731	17,220	18,737	201,730	2,709
1982	2,378	19,795	19,340	8,349	3,419	2,687	14,455	17,506	201,512	(218)
1983	3,090	17,602	17,617	6,909	2,965	1,574	11,448	15,788	200,247	(1,265)

a. Volumes are calculated at a pressure base of 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Col. 4+Col. 5+Col. 6=Col. 7.
c. Proved reserves=Prior year Col. 9+Col. 1+Col. 2−Col. 3+Col. 7−Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1983 Annual Report.

CHART 2-2



NET PRODUCTION AND NEW ADDITIONS TO GAS RESERVES

(TRILLIONS OF CUBIC FEET)

REFERENCE: TABLES 2-1, 2-2

TABLE 2-3
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1983[a]

(Billions of Cubic Feet)

State and Subdivision	Published Proved Reserves 12/31/82	Changes in Reserves During 1983		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**201,512**	**3,090**	**17,602**	**17,617**
(2) Alabama Onshore	648	155	58	37
(3) Alaska	34,990	1	306	742
(4) Arkansas	1,958	(15)	181	157
(5) California	5,552	57	329	222
(6) Coastal Region Onshore	362	(4)	50	29
(7) Los Angeles Basin Onshore	96	22	17	12
(8) San Joaquin Basin Onshore	3,901	37	137	126
(9) State & Federal Offshore	1,193	2	125	55
(10) Colorado	3,314	372	167	636
(11) Florida	64	1	2	0
(12) Kansas	9,724	69	249	178
(13) Kentucky	551	6	32	14
(14) Louisiana[b]	44,916	(562)	5,917	5,936
(15) North	2,912	95	224	179
(16) South Onshore	11,801	20	1,213	1,450
(17) South Offshore[b]	30,203	(677)	4,480	4,307
(18) Michigan	1,084	205	115	100
(19) Mississippi	1,796	11	179	279
(20) Montana	847	75	58	79
(21) New Mexico	12,418	(135)	581	753
(22) East	3,432	(92)	421	315
(23) West	8,986	(43)	160	438
(24) New York	229	33	41	10
(25) North Dakota	629	(9)	119	113
(26) Ohio	1,141	1,075	10	63
(27) Oklahoma	16,207	(323)	2,189	1,891
(28) Pennsylvania	1,429	517	137	195
(29) Texas	49,757	1,727	5,330	5,557
(30) District 1	892	33	143	69
(31) District 2 Onshore	2,493	58	323	268
(32) District 3 Onshore	4,756	402	513	623
(33) District 4 Onshore	8,410	31	910	1,317
(34) District 5	1,308	18	214	200
(35) District 6	4,326	485	352	362
(36) District 7B	805	317	53	50
(37) District 7C	2,659	59	227	291
(38) District 8	8,196	65	835	460
(39) District 8A	1,041	(1)	52	38
(40) District 9	1,103[d]	(124)	74	91
(41) District 10	6,210	71	479	471
(42) State and Federal Offshore	7,558	313	1,155	1,317
(43) Utah	2,161	4	176	42
(44) Virginia	122	1	46	3
(45) West Virginia	2,148	17	172	104
(46) Wyoming	9,758	(206)	1,205	503
(47) Miscellaneous[c]	69	14	3	3

a. Volumes are calculated at a pressure base 14.73 psi, absolute, and at a standard temperature of 60°F.
b. Includes offshore Alabama.
c. Includes Arizona, Illinois, Indiana, Maryland, Nebraska, Oregon, South Dakota, and Tennessee.
d. Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1983 Annual Report.

TABLE 2-3 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS, IN THE UNITED STATES BY STATE, DURING 1983[a]

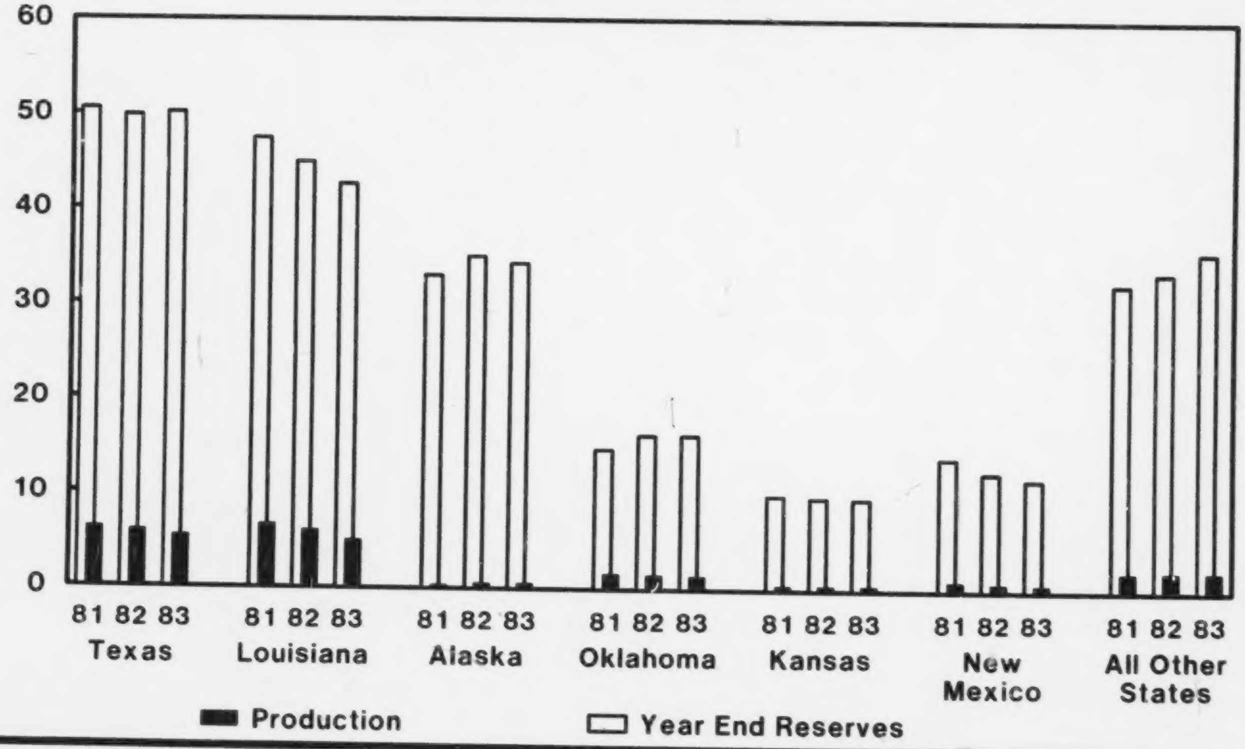
(Billions of Cubic Feet)

Changes in Reserves During 1983					
Extensions	New Field Discoveries	New Reservoir Discoveries In Old Fields	Production	Proved Reserves 12/31/83	
6,909	**1,574**	**2,965**	**15,788**	**200,247**	**(1)**
26	3	0	68	785	(2)
1	0	0	273	34,283	(3)
296	4	8	206	2,069	(4)
206	38	204	383	5,781	(5)
6	30	0	34	381	(6)
0	0	0	16[d]	107[d]	(7)
136	8	33	307	3,819	(8)
64	0	171	26	1,474	(9)
63	12	12	156	3,148	(10)
0	0	0	18	49	(11)
51	3	5	370	9,553	(12)
13	0	4	38	554	(13)
1,423	853	1,096	5,146	42,561	(14)
204	8	10	335	2,939	(15)
508	86	257	1,293	11,142	(16)
711	759	829	3,518	28,480	(17)
24	15	1	125	1,219[d]	(18)
31	9	8	159	1,598	(19)
31	6	7	49	896	(20)
321	27	16	799	11,676	(21)
183	16	9	424	3,230	(22)
138	11	7	375	8,446	(23)
13	1	0	12	295	(24)
23	5	4	58	600	(25)
44	0	2	179[d]	2,030[d]	(26)
1,191	53	329	1,544	16,211	(27)
104	3	8	121[d]	1,882[d]	(28)
2,543	489	1,227	5,464	50,052	(29)
25	100	50	87	1,087	(30)
180	15	76	343	2,534	(31)
201	79	92	740	4,680	(32)
572	87	549	926	8,316	(33)
221	18	0	131	1,448	(34)
351	22	24	341	4,857	(35)
16	2	7	123	1,027[d]	(36)
134	3	5	228	2,568	(37)
192	17	24	713	8,156	(38)
16	1	0	105	966	(39)
90	0	2	122	932	(40)
192	11	48	621	5,919	(41)
353	134	350	984	7,562	(42)
93	8	1	68	2,333	(43)
13	0	0	4	175	(44)
65	3	19	126	2,194[d]	(45)
331	42	14	414	10,227	(46)
3	0	0	8	78	(47)

CHART 2-3

NATURAL GAS STATE RESERVES AND PRODUCTION FOR 1981,1982 AND 1983

(TRILLIONS OF CUBIC FEET)



REFERENCE: TABLE 2-3

TABLE 2-4

SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF NATURAL GAS LIQUIDS IN THE UNITED STATES, 1978-1983

(Millions of barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1978	—	—	—	—	—	—	—	—	6,772[e]	—
1979	64[d]	677	726	364	97	94	555	727	6,615	(157)
1980	153	743	639	418	79	90	587	731	6,728	113
1981	231	729	643	542	91	131	764	741	7,068	340
1982	299	811	832	375	109	112	596	721	7,221	153
1983	849	847	781	321	99	70	490	725	7,901	680

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.
Note: "Old" means discovered in a prior year. "New" means discovered during the report year.
Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas and Natural Gas Liquids Reserves*, 1983 Annual Report.

TABLE 2-5

CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1983

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/82	Changes In Reserves During 1983: Net of Corrections and Adjustments	Changes In Reserves During 1983: Revision Increases	Changes In Reserves During 1983: Revision Decreases
(1) Total United States	**7,221**	**849**	**847**	**781**
(2) Alabama	193	14	28	9
(3) Alaska	9	(1)	0	0
(4) Arkansas	15	(5)	2	1
(5) California	154	(4)	9	6
(6) Coastal Region Onshore	16	1	2	1
(7) Los Angeles Basin Onshore	6	1	1	1
(8) San Joaquin Basin Offshore	124	(4)	5	4
(9) State & Federal Offshore	8	(2)	1	0
(10) Colorado	186	28	10	36
(11) Florida	17	(2)	0	0
(12) Kansas	302	153	12	9
(13) Kentucky	35	(4)	2	1
(14) Louisiana	1,295	65	209	207
(15) North	85	(6)	7	8
(16) South Onshore	501	51	68	75
(17) South Offshore	709	20	134	124
(18) Michigan	97	14	10	8
(19) Mississippi	18	3	2	3
(20) Montana	18	2	1	2
(21) New Mexico	531	51	39	47
(22) East	209	30	31	23
(23) West	322	21	8	24
(24) North Dakota	71	3	13	14
(25) Oklahoma	745	67	118	101
(26) Texas	2,771	389	302	301
(27) District 1	29	6	6	2
(28) District 2 Onshore	75	26	16	14
(29) District 3 Onshore	265	47	36	45
(30) District 4 Onshore	289	9	33	48
(31) District 5	53	13	11	13
(32) District 6	278	60	29	27
(33) District 7B	105	40	7	7
(34) District 7C	199	32	20	24
(35) District 8	588	105	69	39
(36) District 8A	296	(14)	14	10
(37) District 9	119	11	9	14
(38) District 10	391	48	34	34
(39) State Offshore	18	(1)	4	8
(40) Federal Offshore	66	7	14	16
(41) Utah and Wyoming	681	66	83	32
(42) West Virginia	79	10	7	4
(43) Miscellaneous[b]	4	0	0	0

a. Barrel = 42 U.S. gallons.

b. Includes Illinois, Indiana, Nebraska, New York, Ohio, Pennsylvania, and Tennessee.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1983 Annual Report.

TABLE 2-5 (Continued)

CHANGES IN ESTIMATED PROVED RESERVES OF NATURAL GAS LIQUIDS, IN THE UNITED STATES BY STATE, DURING 1983

(Millions of Barrels)[a]

Changes in Reserves During 1983						
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/83	Plant Liquids Production	
321	**70**	**99**	**725**	**7,901**	**568**	**(1)**
5	0	0	15	216	4	(2)
0	0	0	0	8	0	(3)
1	0	0	1	11	1	(4)
4	1	5	12	151	12	(5)
0	1	0	2	17	2	(6)
0	0	0	1	6	1	(7)
4	0	1	9	117	9	(8)
0	0	4	0	11	0	(9)
3	1	1	10	183	9	(10)
0	0	0	4	11	4	(11)
2	0	0	17	443	17	(12)
1	0	0	2	31	2	(13)
48	43	34	155	1,332	92	(14)
5	0	0	9	74	6	(15)
28	5	12	63	527	33	(16)
15	38	22	83	731	53	(17)
2	1	0	11	105	10	(18)
0	1	0	2	19	1	(19)
1	0	0	1	19	1	(20)
19	1	1	44	551	40	(21)
13	1	1	30	232	28	(22)
6	0	0	14	319	12	(23)
2	0	0	6	69	5	(24)
62	2	16	80	829	70	(25)
142	17	40	322	3,038	277	(26)
1	4	3	4	43	3	(27)
7	0	4	15	99	10	(28)
15	5	6	44	285	36	(29)
20	4	17	32	292	24	(30)
15	1	0	7	73	6	(31)
24	1	2	25	342	20	(32)
2	0	1	15	133	15	(33)
11	0	0	19	219	18	(34)
15	1	2	60	681	57	(35)
4	0	0	28	262	28	(36)
12	0	0	16	121	15	(37)
14	1	3	44	413	42	(38)
0	0	0	2	11	1	(39)
2	0	2	11	64	2	(40)
25	3	1	38	789	18	(41)
3	0	1	5	91	5	(42)
1	0	0	0	5	0	(43)

TABLE 2-6
TOTAL ESTIMATED REMAINING IDENTIFIED RESERVES OF COAL AND LIGNITE BY STATE, AS OF JANUARY 1, 1980[a]

(Billions of short tons)

State	Total Coal and Lignite	Coal			Lignite
		Anthracite and Semianthracite	Subbituminous	Bituminous	
United States	**472.7**	**7.3**	**182.0**	**239.3**	**44.1**
Alabama	5.0			3.9	1.1
Alaska	6.1		5.4	.7	b
Arizona	.4			.4	
Arkansas	.4	.1		.3	b
Colorado	17.3	b	4.0	9.1	4.2
Georgia	b			b	
Idaho	b			b	
Illinois	67.6			67.6	
Indiana	10.6			10.6	
Iowa	2.2			2.2	
Kansas	1.0			1.0	
Kentucky	34.0			34.0	
Maryland	.8			.8	
Michigan	.1			.1	
Missouri	6.1			6.1	
Montana	120.4		103.3	1.4	15.7
New Mexico	4.5	b	2.7	1.8	
North Carolina	b			b	
North Dakota	10.0				10.0
Ohio	19.1			19.1	
Oklahoma	1.6			1.6	
Oregon	b		b		
Pennsylvania	30.3	7.1		23.2	
South Dakota	.4				.4
Tennessee	1.0			1.0	
Texas	12.7				12.7
Utah	6.5		b	6.5	
Virginia	3.4	.1		3.3	
Washington	1.5		1.2	.3	b
West Virginia	39.8			39.8	
Wyoming	69.9		65.4	4.5	

[a] Figures are for resources in the ground, about half of which may be considered recoverable. Includes beds of bituminous coal and anthracite 28 in. or more thick and beds of subbituminous coal and lignite 5 ft. or more thick.

[b] Less than 50 million short tons.

Source: U.S. Department of the Interior, Bureau of Mines, *The Demonstrated Reserve Base of Coals in the United States*, January 1, 1980.

TABLE 2-7
SUMMARY OF ANNUAL ESTIMATES OF PROVED RESERVES OF CRUDE OIL IN THE UNITED STATES, 1976-1983
(Millions of barrels)[a]

Year	Net of Corrections and Adjustments (1)	Revision Increases (2)	Revision Decreases (3)	Extensions to Old Reservoirs (4)	New Reservoir Discoveries in Old Fields (5)	New Field Discoveries (6)	Total Discoveries[b] (7)	Production (8)	Proved Reserves[c] 12/31 (9)	Net Change From Prior Year (10)
1976	—	—	—	—	—	—	—	—	33,502[e]	—
1977	(40)[d]	1,503	1,117	496	130	168	794	2,862	31,780	(1,722)
1978	366	2,799	1,409	444	116	267	827	3,008	31,355	(425)
1979	337	2,438	2,001	424	104	108	636	2,955	29,810	(1,545)
1980	219	2,883	994	572	147	143	862	2,975	29,805	(5)
1981	138	2,151	880	750	157	254	1,161	2,949	29,426	(379)
1982	(83)	2,245	1,811	634	193	204	1,031	2,950	27,858	(1,568)
1983	462	2,810	1,299	629	190	105	924	3,020	27,735	(123)

a. Barrel = 42 U.S. gallons.
b. Col. 4 + Col. 5 + Col. 6 = Col. 7.
c. Proved Reserves = Prior year Col. 9 + Col. 1 + Col. 2 − Col. 3 + Col. 7 − Col. 8.
d. Consists only of reported corrections.
e. Based on following year data only.

Note: "Old" means discovered in a prior year. "New" means discovered during the report year.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1983 Annual Report.

TABLE 2-8
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1983

(Millions of Barrels)[a]

State and Subdivision	Published Proved Reserves 12/31/82	Changes In Reserves During 1983		
		Net of Corrections and Adjustments	Revision Increases	Revision Decreases
(1) Total United States	**27,858**	**462**	**2,810**	**1,299**
(2) Alabama	54	5	4	6
(3) Alaska	7,406	0	563	1
(4) Arkansas	107	23	11	10
(5) California	5,405	56	303	111
(6) Coastal Region Onshore	580	3	36	32
(7) Los Angeles Basin Onshore	370	2	36	22
(8) San Joaquin Basin Onshore	3,081	51	150	39
(9) State & Federal Offshore	1,374	0	81	18
(10) Colorado	169	25	22	15
(11) Florida	97	(1)	4	2
(12) Illinois	150	(18)	23	5
(13) Indiana	28	8	3	1
(14) Kansas	378	(15)	53	39
(15) Kentucky	36[c]	5	5	6
(16) Louisiana	2,728	11	472	351
(17) North	240[c]	9	14	23
(18) South Onshore	611	(16)	83	46
(19) South State Offshore	146	2	19	10
(20) South Federal Offshore	1,731	16	356	272
(21) Michigan	184	17	43	22
(22) Mississippi	223	14	20	32
(23) Montana	216	12	28	14
(24) Nebraska	32[c]	2	16	2
(25) New Mexico	563	(15)	94	26
(26) East	537	(18)	88	23
(27) West	26	3	6	3
(28) North Dakota	237	22	54	43
(29) Ohio	111	37	1	4
(30) Oklahoma	971	(8)	163	112
(31) Pennsylvania	37	4	15	13
(32) Texas	7,616	225	671	400
(33) District 1	129	26	25	9
(34) District 2 Onshore	206	9	16	7
(35) District 3 Onshore	509	35	96	58
(36) District 4 Onshore	87	(1)	30	10
(37) District 5	45	(1)	4	2
(38) District 6	947	60	61	65
(39) District 7B	199	34	35	31
(40) District 7C	229	(9)	34	19
(41) District 8	2,312	62	193	71
(42) District 8A	2,481	20	112	61
(43) Distirct 9	219	8	34	20
(44) District 10	112	(1)	11	11
(45) State and Federal Offshore	141	(17)	20	36
(46) Utah	173	16	18	10
(47) West Virginia	48	7	6	11
(48) Wyoming	856	23	215	53
(49) Miscellaneous[b]	33	7	3	10

[a] Barrel = 42 U.S. gallons.

[b] Includes Arizona, Missouri, Nevada, New York, South Dakota, Tennessee, and Virginia.

[c] Indicates that the estimate is associated with a sampling error (95 percent confidence interval) which exceeds 20 percent of the estimated value.

Source: U.S. Department of Energy, Energy Information Administration, *U.S. Crude Oil, Natural Gas, and Natural Gas Liquids Reserves*, 1983 Annual Report.

TABLE 2-8 (Continued)
CHANGES IN ESTIMATED PROVED RESERVES OF CRUDE OIL, IN THE UNITED STATES BY STATE, DURING 1983
(Millions of Barrels)[a]

Changes in Reserves During 1983					
Extensions	New Field Discoveries	New Reservoir Discoveries in Old Fields	Production	Proved Reserves 12/31/83	
629	**105**	**190**	**3,020**	**27,735**	(1)
1	0	0	7	51	(2)
4	0	0	665	7,307	(3)
6	0	1	18	120	(4)
56	5	34	400	5,348	(5)
7	5	0	40	559	(6)
2	0	0	45	343	(7)
35	0	2	248	3,032	(8)
12	0	32	67	1,414	(9)
4	1	10	30	186^c	(10)
0	0	1	21	78	(11)
3	0	1	19	135	(12)
1	0	0	5	34	(13)
23	3	3	62	344	(14)
1	0	0	6^c	35	(15)
136	39	89	417	2,707	(16)
8	0	4	29	223^c	(17)
21	6	5	95	569	(18)
1	3	1	20	142	(19)
106	30	79	273	1,773	(20)
8	9	1	31	209	(21)
4	4	1	29	205	(22)
5	11	4	28	234	(23)
1	0	0	5^c	44	(24)
26	2	2	70	576	(25)
22	0	1	65	542	(26)
4	2	1	5^c	34^c	(27)
31	5	3	51	258	(28)
2	0	1	18^c	130^c	(29)
44	5	8	140	931	(30)
1	0	0	3^c	41	(31)
236	17	29	855	7,539	(32)
14	0	1	21	165^c	(33)
2	0	1	35	192	(34)
20	5	4	94	517	(35)
5	1	3	19	96	(36)
4	0	0	8	42	(37)
5	0	1	91	918	(38)
9	3	1	33	217	(39)
23	1	1	32	228	(40)
74	3	3	226	2,350	(41)
39	1	1	227	2,366	(42)
10	3	3	37	220	(43)
11	0	2	19	105	(44)
20	0	8	13	123	(45)
12	0	0	22	187	(46)
1	0	1	3	49^c	(47)
22	4	1	111	957	(48)
1	0	0	4	30	(49)

Table 2-9

SUMMARY OF ANNUAL ESTIMATES OF RESERVES OF NATURAL GAS IN CANADA, 1964-1983[a]

(Millions of cubic feet)

	Reserves Remaining at Beginning of Year	Changes Due To						Reserves Remaining at End of Year	Change During Year	Probable Remaining at End of Year[b]
		Revisions	Revisions and Extensions	Extensions	Discoveries	Net Change in Underground Storage	Net Production			
MARKETABLE GAS[c]										
1964	32,992,252	—	—	—	—	—	—	39,319,544	6,327,292	45,572,431
1965	39,319,544	—	—	—	—	—	—	40,354,527	1,034,983	46,434,950
1966	40,354,527	2,158,536	—	1,532,317	512,086	17,918	1,125,289	43,450,095	3,095,568	49,269,076
1967	43,450,095	1,572,424	—	1,268,002	603,459	4,120	1,216,049	45,682,051	2,231,956	50,945,169
1968	45,682,051	230,116	—	2,867,357	282,913	(1,255)	1,394,721	47,666,461	1,948,410	54,185,935
1969	47,666,461	2,043,815	—	2,690,603	1,104,452	2,197	1,556,533	51,950,995	4,284,534	57,467,963
1970	51,950,995	493,804	—	2,516,126	193,682	20,205	1,799,184	53,375,628	1,424,633	60,289,373
1971	53,375,628	983,556	—	2,280,205	775,500	65	1,953,104	55,461,850	2,086,222	61,964,760
1972	55,461,850	(2,004,125)	—	1,243,897	487,538	(5,580)	2,247,798	52,935,782	2,526,068)	60,546,769
1973	52,935,782	(167,054)	—	1,257,243	686,714	70,097	2,325,350	52,457,432	(478,350)	60,801,088
1974	52,457,432	2,953,557	—	3,487,099	193,056	10,428	2,393,486	56,708,086	[illegible],250,654	64,459,133
1975	56,708,086	(177,606)	—	2,412,582	362,895	29,869	2,361,110	56,974,716	266,630	71,466,773
1976	56,974,716	(367,880)	—	3,587,990	639,345	(11,053)	2,541,176	58,281,942	1,307,226	76,359,832
1977	58,281,942	1,432,871	—	1,852,325	351,007	46,730	2,492,849	59,472,026	1,190,084	78,031,771
ESTABLISHED RESERVES										
1977	76,835,973	d	—	d	d	46,709	2,492,850	79,180,390	2,344,416	—
1978	79,180,390	2,026,962	—	2,534,342	1,018,734	3,443	2,340,406	82,423,467	3,243,077	—
1979	82,423,467	3,012,475	—	2,062,527	3,347,747	10,613	2,263,030	88,593,799	6,170,332	—
1980	88,594,374	62,043	—	1,408,320	900,050	(33,222)	2,486,016	88,445,549	(148,825)	—
1981	88,461,174	2,234,086	—	2,062,408	624,303	9,372	2,405,800	90,985,543	2,524,369	—
1982	90,985,541	1,750,541	—	1,425,609	214,029	73,450	2,466,895	91,982,275	996,734	—
1983	91,966,031	1,899,412	—	982,360	223,149	(114,502)	2,225,705	92,730,743	764,712	—

a. Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
b. Includes proved reserves.
c. For definition refer to Glossary.
d. Not available.
( ): Denotes negative volume.
Source: Canadian Petroleum Association, "Report of the Reserves Committee," News Release, June 20, 1984.

ENERGY RESERVES

TABLE 2-10
ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, 1983*

(Millions of cubic feet)

			Remaining Reserves At December 31, 1983				
				Net			
Province	Remaining Reserves December 31, 1982	Change During Year	Total	Non-associated	Associated	Dissolved	Under-ground Storage
Canada	**91,966,031**	**764,712**	**92,730,743**	**82,736,452**	**7,195,856**	**2,600,129**	**198,304**
Total West Canada	**91,645,061**	**629,232**	**92,274,293**	**82,463,186**	**7,194,898**	**2,600,129**	**16,079**
Alberta	61,346,086	582,168	61,928,254	52,694,453	6,780,048	2,442,927	10,826
Arctic Islands	13,507,175	–	13,507,175	13,507,174	–	–	–
Br. Columbia	7,829,491	56,896	7,886,387	7,377,798	385,675	122,915	–
Mackenzie Delta	7,553,421	–	7,553,421	7,553,421	–	–	–
Mainland Territories	405,054	12,600	417,654	400,653	17,001	–	–
Saskatchewan	1,003,834	(22,432)	981,402	929,687	12,174	34,287	5,253
Total East Canada	**320,970**	**135,480**	**456,450**	**273,266**	**958**	–	**182,225**
Ontario	312,877	135,728	448,605	266,380	–	–	182,225
Other E. Canada	8,093	(248)	7,845	6,886	958	–	–

*Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
( ): Denotes negative volume.
Source: Same as Table 2-9.

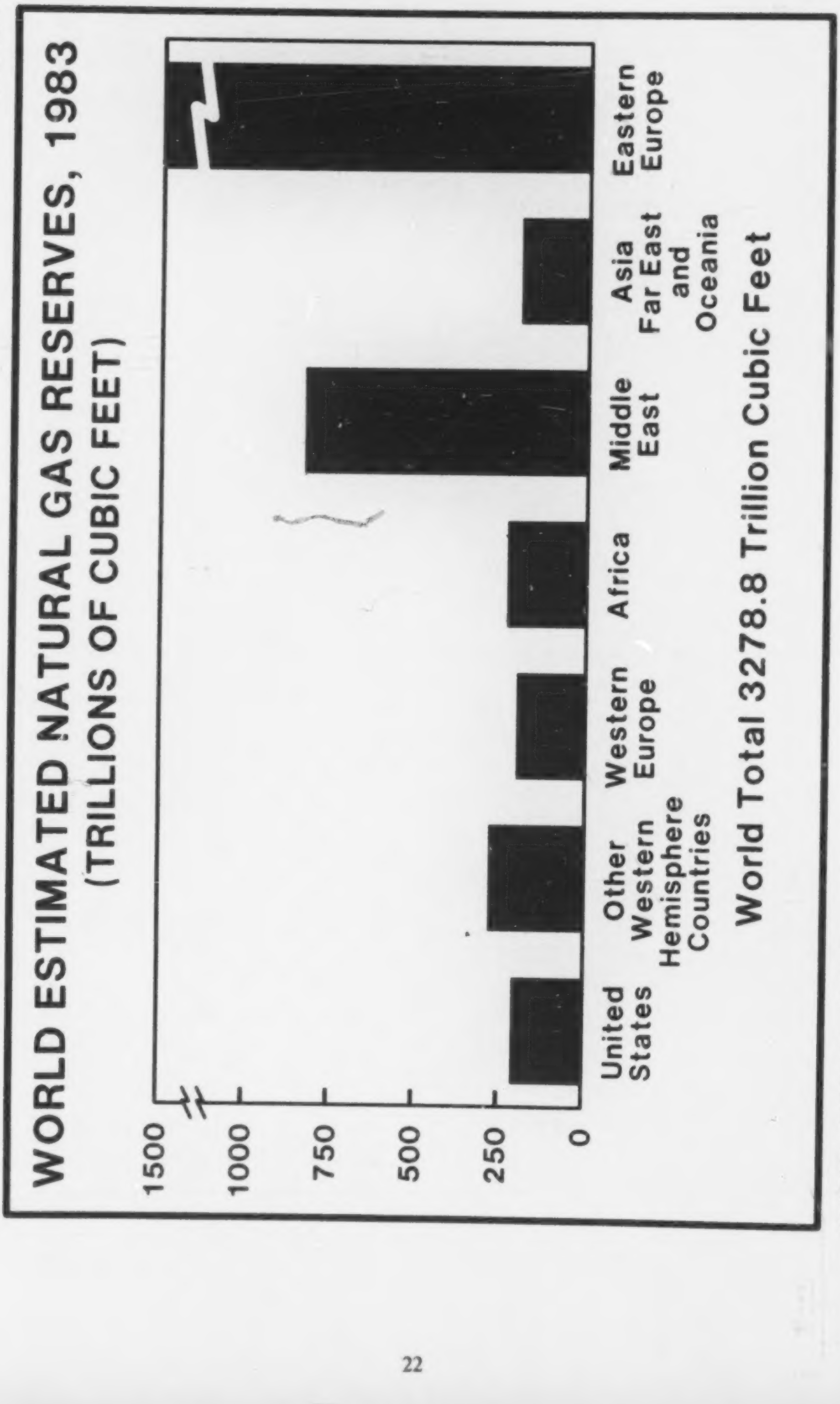
TABLE 2-11
CHANGES IN ESTIMATED ESTABLISHED REMAINING MARKETABLE RESERVES OF NATURAL GAS IN CANADA, BY PROVINCE, DURING 1983*

(Millions of cubic feet)

		Changes in Reserves during 1983					
Province	Remaining Reserves December 31, 1982	Revisions	Exten-sions	Dis-coveries	Net Change in Under-ground Storage	Net Produc-tion	Remaining Reserves December 31, 1983
Canada	**91,966,031**	**1,899,410**	**982,360**	**223,148**	**(114,502)**	**2,225,832**	**92,730,743**
Total West Canada	**91,645,061**	**1,731,774**	**982,360**	**208,241**	**(84,013)**	**2,209,256**	**92,274,294**
Alberta	61,346,086	1,482,076	954,249	195,996	(83,552)	1,966,601	61,928,254
Arctic Islands	13,507,175	–	–	–	–	–	13,507,175
Br. Columbia	7,829,491	237,666	6,460	12,245	–	199,601	7,886,387
Mackenzie Delta	7,553,421	–	–	–	–	–	7,553,421
Mainland Territories	405,054	18,137	–	–	–	5,537	417,655
Saskatchewan	1,003,834	(6,105)	21,651	–	(461)	37,517	981,402
Total East Canada	**320,970**	**167,636**	–	**14,907**	**(30,489)**	**16,575**	**456,449**
Ontario	312,877	167,636	–	14,907	(30,489)	16,327	448,605
Other E. Canada	8,093	–	–	–	–	248	7,844

*Volumes are calculated at a pressure base of 14.65 psia and at a standard temperature of 60°F.
( ): Denotes negative volume.
Source: Same as Table 2-9.

CHART 2-4



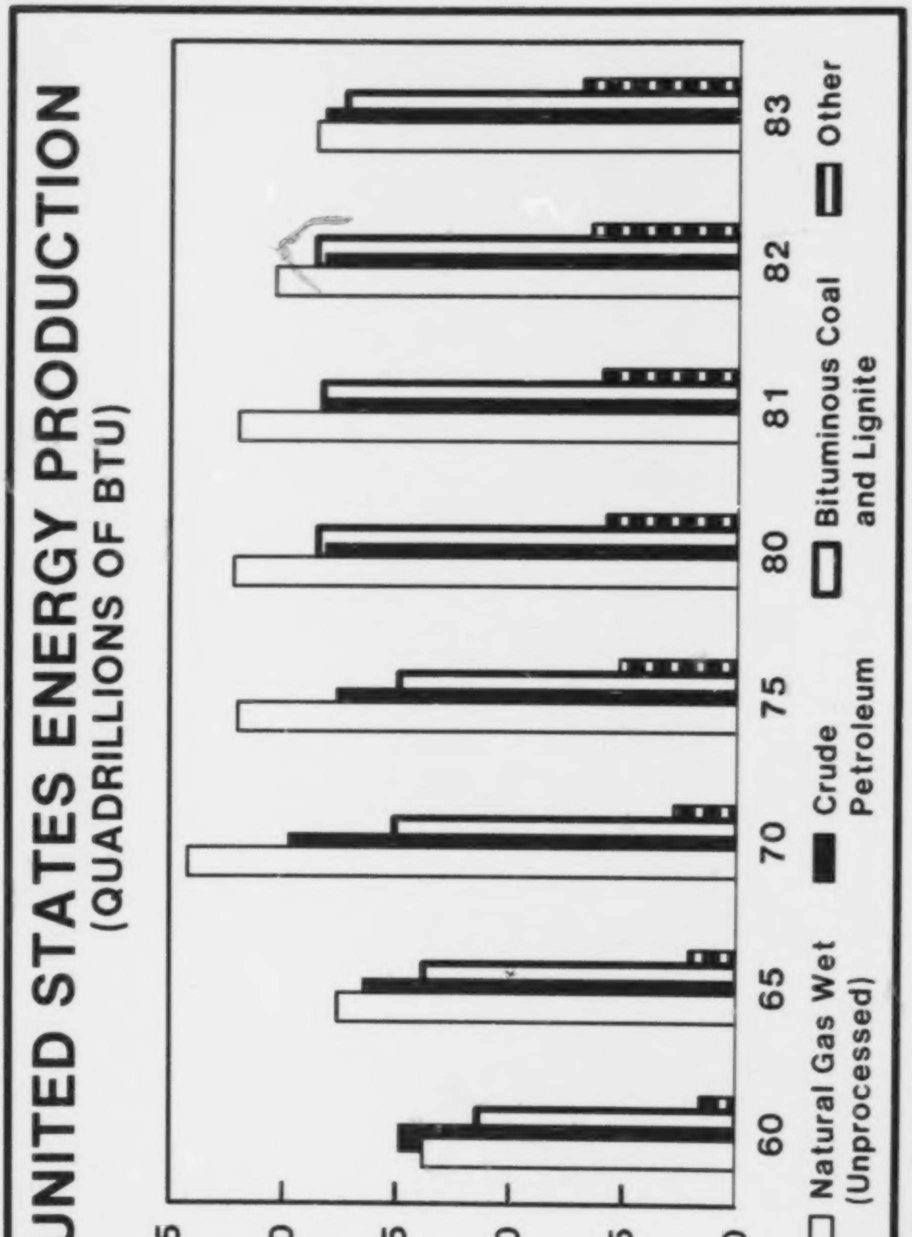
SOURCE: *WORLD OIL*, AUGUST 15, 1984

SECTION 3
NATURAL GAS SUPPLY

	1983	% Change 83/82
Maximum Day Sendout (Trillions of Btu)	77.3	− 7.5
Production (wet) (Trillions of Btu)	18,621	− 8.0*
Net Imports (Millions of cubic feet)	863,721	− 2.0
Producing Gas Wells	214,354	+ 5.2*
New Gas Well Completions	15,628	−17.5

*Percentage change based on preliminary data for both years.

CHART 3-1



UNITED STATES ENERGY PRODUCTION
(QUADRILLIONS OF BTU)

REFERENCE: TABLE 3-1

SUPPLY

TABLE 3-1

ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1983

(Trillions of Btu)[a]

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power[b]	Nuclear[c]	Other[d]	Grand Total Energy
1960	13,822	14,935	10,886	478	1,578	5	*	41,704
1965	17,628	16,521	13,417	378	2,033	38	*	50,015
1966	18,984	16,925	13,507	329	2,062	57	*	51,864
1967	20,087	18,100	13,904	311	2,347	80	*	54,829
1968	21,548	18,593	13,664	291	2,349	130	*	56,575
1969	22,838	18,886	13,957	266	2,648	146	*	58,741
1970	24,154	19,772	14,820	247	2,630	229	*	61,852
1971	24,805	20,033	13,385	222	2,825	404	*	61,674
1972	24,792	20,041	14,319	181	2.866	576	*	62.775
1973^{R}	24,756	19,493	13,926	e	2,861	910	46	61,993
1974^{R}	23,681	18,575	14,010	e	3,177	1,272	56	60,770
1975^{R}	22,014	17,729	14,931	e	3,155	1,900	72	59,801
1976^{R}	21,807	17,262	15,649	e	2,976	2,111	81	59,886
1977^{R}	21,892	17,454	15,679	e	2,333	2,702	82	60,142
1978^{R}	21,730	18,434	14,856	e	2,937	3,024	68	61,049
1979^{R}	22,362	18,104	17,483	e	2,931	2,776	89	63,744
1980^{R}	22,161	18,249	18,544	e	2,900	2,739	114	64,708
1981^{R}	22,006	18,146	18,331	e	2,758	3,008	127	64,376
1982^{R}	20,446	18,309	18,603	e	3,271	3,115	108	63,851
1983	18,621	18,324	17,286	e	3,511	3,235	135	61,113

a. The 1983 unit heat values employed are: Anthracite, 11,875 Btu per pound; bituminous coal and lignite, 11,008 Btu per pound; petroleum approx. 5,800,000 Btu per barrel; natural gas dry 1,028 Btu per cubic foot; natural gas liquids obtained by using 91,881 Btu per gallon.

b. Hydropower output is converted to theoretical energy inputs calculated from national average heat rates for fossil-fueled steam-electric plants.

c. Nuclear power energy input conversion is based on information from the Atomic Power Commission.

d. Includes geothermal power and electricity produced from wood and waste.

e. Included in "Bituminous Coal and Lignite."

R – Revised. *– Not available.

Source: Prior to 1977 U.S. Bureau of Mines, for 1977 and beyond, data taken from U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

TABLE 3-2

ANNUAL PRODUCTION OF FOSSIL ENERGY RESOURCES AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1983

(Percentage)

Year	Natural Gas Wet (unprocessed)	Crude Petroleum	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other[b]	Grand Total Energy
1960	33.2	35.8	26.1	1.1	3.8	a	*	100.0
1965	35.2	33.0	26.8	0.8	4.1	0.1	*	100.0
1966	36.6	32.6	26.1	0.6	4.0	0.1	*	100.0
1967	36.6	33.0	25.4	0.6	4.3	0.1	*	100.0
1968	38.1	32.8	24.2	0.5	4.2	0.2	*	100.0
1969	38.9	32.2	23.8	0.4	4.5	0.2	*	100.0
1970	39.0	32.0	24.0	0.4	4.2	0.4	*	100.0
1971	40.2	32.5	21.7	0.4	4.6	0.6	*	100.0
1972	39.5	31.9	22.8	0.3	4.6	0.9	*	100.0
1973^{R}	39.9	31.4	22.5	c	4.6	1.5	.1	100.0
1974^{R}	39.0	30.6	23.0	c	5.2	2.1	.1	100.0
1975^{R}	36.8	29.6	25.0	c	5.3	3.2	.1	100.0
1976^{R}	36.4	28.8	26.2	c	5.0	3.5	.1	100.0
1977^{R}	36.4	29.0	26.1	c	3.9	4.5	.1	100.0
1978^{R}	35.6	30.2	24.3	c	4.8	5.0	.1	100.0
1979^{R}	35.1	28.4	27.4	c	4.6	4.4	.1	100.0
1980^{R}	34.2	28.2	28.7	c	4.5	4.2	.2	100.0
1981^{R}	34.2	28.2	28.5	c	4.3	4.6	.2	100.0
1982^{R}	32.0	28.7	29.1	c	5.1	4.9	.2	100.0
1983	30.5	30.0	28.3	c	5.7	5.3	.2	100.0

a. Less than 0.05.

b. Includes geothermal power and electricity produced from wood and waste.

c. Included in "Bituminous Coal and Lignite."

R – Revised *– Not available.

Source: Same as Table 3-1.

TABLE 3-3

SUPPLY AND DISPOSITION OF GAS IN THE UNITED STATES, 1960-1982

(Millions of cubic feet)

	Gross Production[a]						Disposition of Marketed Production									
Year	Gas Wells	Oil Wells	Total	Repressuring	Vented and Flared	Marketed Production[b]	Extraction Loss	Lease and Plant Fuel	Net Change in Underground Storage	Pipeline Fuel	Unaccounted For	Nonhydrocarbon Gases	Domestic Dry Production For Sale	Net Imports	Supplemental Supplies	Delivered to Consumers[c]
1960	10,853,426	4,234,485	15,087,911	1,753,996	562,877	12,771,038	1,779,671		131,694	347,075	274,231	d	10,238,367	144,314	d	10,382,681
1961	11,195,087	4,265,225	15,460,312	1,682,754	523,533	13,254,025	1,881,208		145,616	377,607	234,808	d	10,614,786	208,113	d	10,822,899
1962	11,702,382	4,336,591	16,038,973	1,736,722	425,629	13,876,622	1,993,128		86,487	382,496	285,726	d	11,128,785	385,720	d	11,514,505
1963	12,606,022	4,367,346	16,973,368	1,843,297	383,408	14,746,663	2,081,339		130,772	423,783	364,658	d	11,746,111	389,247	d	12,135,358
1964	13,035,200	4,405,100	17,440,300	1,638,161	339,996	15,462,143	2,082,029		128,804	433,204	302,781	d	12,515,325	421,421	d	12,936,746
1965	13,523,600	4,439,500	17,963,100	1,604,204	319,143	16,039,753	1,909,697		118,115	500,524	318,711	d	13,192,706	430,262	d	13,622,968
1966	13,893,921	5,139,918	19,033,839	1,451,516	375,695	17,206,628	1,772,708		68,855	535,353	401,203	d	14,428,509	455,141	d	14,883,650
1967	15,346,853	4,904,923	20,251,776	1,590,574	489,877	18,171,325	784,534	1,140,966	184,829	575,752	296,214	d	15,189,030	482,612	d	15,671,642
1968	16,539,925	4,785,075	21,325,000	1,486,092	516,508	19,322,400	827,877	1,237,131	95,539	590,965	325,062	d	16,245,826	558,140	d	16,803,966
1969	17,489,415	5,189,780	22,679,195	1,455,205	525,750	20,698,240	866,560	1,345,648	119,500	630,962	331,587	d	17,403,983	675,647	d	18,079,630
1970	18,594,658	5,191,795	23,786,453	1,376,351	489,460	21,920,642	906,413	1,398,758	398,160	722,166	227,650	d	18,267,495	750,967	d	19,018,462
1971	18,925,136	5,162,895	24,088,031	1,310,458	284,561	22,493,012	883,127	1,413,650	331,768	742,592	338,999	d	18,782,876	854,336	d	19,637,212
1972	19,042,592	4,973,517	24,016,109	1,236,292	248,119	22,531,698	907,993	1,455,563	135,734	766,156	328,002	d	18,938,250	941,483	d	19,879,733
1973	19,371,600	4,695,602	24,067,202	1,171,361	248,292	22,647,549	916,551	1,495,915	441,504	728,177	195,863	d	18,869,539	955,732	d	19,825,271
1974	18,669,212	4,180,581	22,849,793	1,079,890	169,381	21,600,522	887,490	1,477,386	83,663	668,792	288,731	d	18,194,460	882,495	d	19,076,955
1975	17,380,293	3,723,237	21,103,530	860,956	133,913	20,108,661	872,282	1,396,277	344,054	582,963	235,068	d	16,678,020	880,333	d	17,558,353
1976	17,190,655	3,753,123	20,943,778	859,410	131,930	19,952,438	854,086	1,634,355	(165,327)	548,323	216,240	d	16,864,760	899,058	d	17,763,818
1977	17,415,983	3,681,088	21,097,071	934,801	136,807	20,025,463	862,563	1,659,145	556,631	532,669	41,063	d	16,373,392	955,375	d	17,328,767
1978	17,394,213	3,914,602	21,308,815	1,181,432	153,350	19,974,033	852,130	1,647,911	120,237	530,451	287,201	d	16,536,103	913,013	d	17,449,116
1979	18,033,879	3,849,474	21,883,353	1,245,074	167,019	20,471,260	807,845	1,498,530	248,034	600,964	372,330	d	16,943,557	1,197,710	d	18,141,267
1980R	17,572,526	4,297,166	21,869,692	1,365,454	125,451	20,378,787	776,605	1,026,438	(23,269)	634,622	639,559	199,063	17,125,769	935,874	154,590	18,216,233
1981R	17,336,862	4,250,591	21,587,453	1,311,735	98,017	20,177,701	774,562	927,591	297,430	642,325	500,501	221,878	16,813,414	844,826	175,702	17,833,942
1982	15,802,614	4,407,314	20,209,928	1,388,392	93,365	18,728,171	761,942	1,109,398	308,199	596,411	474,736	208,492	15,268,993	881,441	144,811	16,295,245

a. Includes gas (mostly residue gas) blown to the air but does not include direct waste on producing properties, except where data are available.
b. "Marketed Production" equals "Total Gross Production" less "Repressuring" and "Vented and Flared." It includes an allowance for natural gas liquids content in the natural gas and nonhydrocarbon gases.
c. Defined as Domestic Dry Production For Sale plus Net Imports plus Supplemental Gas Supplies. See Table 3-15 for details on Supplemental Gas Supplies.
d. 1980 is the first year this data is available.
( ): Denotes negative. R—Revised.
Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.
Note: 1983 data reported by U.S. Department of Energy, *Monthly Energy Review*, February 1984 is as follows: "Marketed Production"—16,657,000 million of cubic feet (MMcf); "Net Imports"—889,000 MMcf; "Net Change in Underground Storage"—minus 455,000 MMcf.

SUPPLY

TABLE 3-4
GAS UTILITY INDUSTRY, GAS SUPPLY AND DISPOSITION, 1960-1983[f]

(Trillions of Btu)

	Amount							
	1960	1965	1970[a]	1975	1980	1981	1982[R]	1983
Supply—Produced and Purchased—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**17,209.3**	**16,084.1**	**14,121.6**
Natural	10,544.6	13,315.9	18,661.8	16,490.1	16,935.3	16,927.9	15,834.1	13,859.4
Manufactured	b	b	75.6	19.3	8.8	7.7	3.9	4.7
Liquefied Petroleum Gas	b	b	26.9	24.8	17.9	17.1	13.0	7.9
Substitute Natural Gas	b	b	1.2	261.3	198.4	188.8	172.9	155.0
Liquefied Natural Gas	b	b	0.0	8.4	79.6	31.7	28.2	27.9
Unclassified	b	b	64.0	7.6	36.4	36.1	32.0	66.7
Disposition—Total	**10,544.6**	**13,315.9**	**18,829.5**	**16,811.5**	**17,276.4**	**17,209.3**	**16,084.1**	**14,121.6**
Used in Production of Other Gases[c]	215.9	126.7	125.4	124.2	95.0	79.8	44.4	58.7
Company Use as a Fuel[d]	757.6	995.7	1,380.1	1,089.3	1,278.7	1,191.9	1,173.1	1,050.9
Sales to Ultimate Consumers	9,054.6	11,842.0	16,043.5	14,862.9	15,413.2	15,374.8	14,182.7	12,859.0
Other Deliveries (Net)	54.9	89.6	70.1	83.9	85.8	44.8	9.6	53.3
Placed in Storage (Net)	164.7	67.6	473.6	348.8	16.9	149.7	284.3	(407.5)
Unaccounted For[e]	296.9	194.3	736.8	302.4	386.8	368.3	390.0	507.2

a. Includes Natural Gas only prior to 1970.
b. Not available.
c. Includes Natural Gas used for enriching, reforming and mixing.
d. Includes interdepartmental transfers.
e. Represents difference between supply and disposition, and should not be interpreted as a reliable measure of transmission efficiency.
f. Total supply figures involve some double counting. For production of supplementals see Table 3-15.
R—Revised.

TABLE 3-5
GAS UTILITY INDUSTRY, MAXIMUM AND MINIMUM DAY SENDOUT[a] BY SOURCE OF SUPPLY, 1976-1983[b]

(Trillions of Btu)

	1976	1977	1978	1979	1980	1981	1982[R]	1983
Maximum Day Sendout—Total	**78.9**	**81.8**	**92.1**	**83.8**	**76.1**	**78.8**	**83.6**	**77.3**
Peak Shaving Facilities	1.9	3.7	3.4	2.0	1.3	2.5	3.4	2.5
Underground Storage Withdrawal	36.3	37.3	36.3	38.3	38.3	37.2	42.4	54.8
Regular Production and Purchases	40.7	40.8	52.4	43.5	36.5	39.1	37.8	20.0
Minimum Day Sendout—Total	**19.3**	**17.0**	**16.3**	**17.8**	**16.0**	**16.6**	**13.7**	**13.1**
Average Day Sendout—Total	**40.6**	**39.3**	**40.4**	**42.3**	**42.2**	**42.1**	**38.9**	**35.2**

a. Represents summation of all companies maximum/minimum day sendout.
b. Excludes sendout of pipeline companies to avoid duplication. Underground storage withdrawals include amounts from fields operated by both distributors and pipelines.
R—Revised.

TABLE 3-6
GROSS PRODUCTION OF NATURAL GAS, BY STATE, 1965-1982[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1979	1980	1981	1982
United States	**17,963,100**	**23,786,453**	**21,103,530**	**21,883,353**	**21,869,692**	**21,587,453**	**20,209,928**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**88,240**	**80,472**	**92,400**	**111,813**	**113,089**	**141,454**	**139,871**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,500	15,650	19,000	18,760
Pennsylvania	84,900	77,114	84,772	96,313	97,439	122,454	121,111
East North Central	**82,700**	**97,276**	**191,497**	**291,460**	**305,003**	**301,052**	**298,557**
Illinois	7,500	4,972	1,440	1,585	1,574	1,295	1,162
Indiana	2,400	153	346	350	463	330	233
Michigan	36,900	40,038	103,901	164,860	164,110	158,293	158,771
Ohio	35,900	52,113	85,810	124,665	138,856	141,134	138,391
Wisconsin	0	0	0	0	0	0	0
West North Central	**866,900**	**965,535**	**877,137**	**849,690**	**791,315**	**697,708**	**489,373**
Iowa	0	0	0	0	0	0	0
Kansas	806,800	904,475	846,164	800,163	737,246	641,833	430,889
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	b	0	0	0	0
Nebraska	12,100	6,309	3,963	3,208	2,550	2,713	2,280
North Dakota	48,000	54,751	26,941	45,400	50,321	51,955	53,819
South Dakota	0	b	39	919	1,198	1,207	2,385
South Atlantic	**211,060**	**246,599**	**205,683**	**209,267**	**210,852**	**208,749**	**184,163**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	50,190	46,421	38,539	26,397
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	28	68	56	36
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,544	7,812	8,903	6,880
West Virginia	207,500	242,981	154,484	150,505	156,551	161,251	150,850
East South Central	**277,300**	**234,912**	**192,544**	**344,196**	**385,362**	**421,525**	**409,894**
Alabama	b	b	38,921	90,695	111,83	125,624	133,298
Kentucky	79,100	77,892	60,511	59,520	57,180	61,312	51,924
Mississippi	198,200	157,020	92,500	192,376	215,105	232,870	221,696
Tennessee	b	b	612	1,605	1,241	1,719	2,976
West South Central	**14,022,900**	**19,469,337**	**17,073,397**	**17,038,145**	**16,810,823**	**16,432,827**	**15,276,762**
Arkansas	104,000	183,650	121,518	127,469	127,696	132,529	149,862
Louisiana	4,764,300	8,076,157	7,242,408	7,358,795	7,008,489	6,829,507	6,216,868
Oklahoma	1,414,000	1,811,004	1,720,698	1,958,337	2,018,577	2,019,199	1,934,412
Texas	7,740,600	9,398,526	7,988,773	7,593,544	7,656,061	7,451,592	6,975,620
Mountain	**1,492,500**	**1,744,236**	**1,849,992**	**1,968,293**	**1,952,333**	**1,959,241**	**1,842,659**
Arizona	b	b	255	348	357	293	261
Colorado	155,200	115,157	174,145	192,694	191,806	200,739	214,933
Idaho	0	0	0	0	0	0	0
Montana	29,800	48,302	44,547	56,094	53,802	58,502	58,184
Nevada	0	0	0	0	0	0	0
New Mexico	956,500	1,141,889	1,227,200	1,200,469	1,168,049	1,153,163	1,009,883
Utah	92,100	73,386	77,607	78,674	87,766	91,191	94,255
Wyoming	258,900	365,502	326,238	440,014	450,553	455,353	465,143
Pacific	**917,800**	**945,099**	**620,880**	**1,070,489**	**1,300,915**	**1,424,897**	**1,568,649**
Alaska	12,800	217,854	253,227	732,990	893,759	943,059	1,084,732
California	905,000	727,245	367,653	337,497	407,151	481,833	483,914
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	2	5	5	3
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,987**	**0**	**0**	**0**	**0**	**0**

a. Includes gas (mostly residue gas) blown to the air, but does not include direct waste on producing properties, except where data available.

b. Included in "Other States."

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

TABLE 3-7
NET WELLHEAD PRODUCTION OF NATURAL GAS, BY STATE, 1965-1982[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1979	1980	1981	1982
United States	**16,358,896**	**22,410,102**	**20,242,574**	**20,638,279**	**20,504,238**	**20,275,718**	**18,821,536**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,842**	**80,199**	**92,400**	**111,813**	**113,089**	**141,454**	**139,871**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,500	15,650	19,000	18,760
Pennsylvania	84,502	76,841	84,772	96,313	97,439	122,454	121,111
East North Central	**80,800**	**96,898**	**190,471**	**288,057**	**302,628**	**298,662**	**296,157**
Illinois	7,500	4,972	1,440	1,585	1,574	1,295	1,162
Indiana	2,400	153	346	350	463	330	233
Michigan	35,000	39,660	103,725	162,691	161,735	155,903	156,371
Ohio	35,900	52,113	84,960	123,431	138,856	141,134	138,391
Wisconsin	b	0	0	0	0	0	0
West North Central	**860,204**	**963,410**	**875,409**	**848,090**	**789,841**	**687,946**	**488,512**
Iowa	0	0	0	0	0	0	0
Kansas	806,683	902,668	844,471	798,563	735,772	640,755	430,028
Minnesota	0	0	0	0	0	0	0
Missouri	b	b	30	0	0	0	0
Nebraska	11,985	5,991	3,963	3,208	2,550	2,713	2,280
North Dakota	41,536	54,751	26,941	45,400	50,321	43,271	53,819
South Dakota	0	b	5	919	1,198	1,207	2,385
South Atlantic	**211,044**	**246,070**	**205,683**	**209,267**	**210,852**	**206,576**	**183,069**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	b	b	44,383	50,190	46,421	36,366	25,303
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	28	68	56	36
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,544	7,812	8,903	6,880
West Virginia	207,484	242,452	154,484	150,505	156,551	161,251	150,850
East South Central	**255,601**	**211,156**	**186,251**	**330,393**	**369,219**	**408,409**	**392,823**
Alabama	b	b	38,921	87,312	108,702	121,819	124,994
Kentucky	79,100	77,892	60,511	59,520	57,180	61,312	51,924
Mississippi	176,501	133,264	86,207	182,494	202,096	223,559	212,929
Tennessee	b	b	612	1,067	1,241	1,719	2,976
West South Central	**12,769,359**	**13,306,535**	**16,387,930**	**16,466,145**	**16,273,072**	**15,999,077**	**14,868,441**
Arkansas	83,845	181,577	117,555	109,923	112,202	93,538	125,584
Louisiana	4,589,349	7,942,365	7,116,104	7,292,278	6,962,775	6,803,226	6,191,409
Oklahoma	1,356,738	1,724,572	1,637,212	1,861,971	1,917,379	2,019,199	1,934,412
Texas	6,739,427	8,458,021	7,517,059	7,201,973	7,280,716	7,083,114	6,617,036
Mountain	**1,416,853**	**1,705,299**	**1,813,914**	**1,909,773**	**1,898,955**	**1,902,758**	**1,794,925**
Arizona	b	b	255	348	357	293	261
Colorado	131,342	112,930	174,145	192,438	191,610	200,341	214,706
Idaho	0	0	0	0	0	0	0
Montana	29,221	47,908	43,936	55,577	53,572	58,461	58,184
Nevada	0	0	0	0	0	0	0
New Mexico	945,794	1,141,889	1,219,072	1,185,999	1,154,992	1,140,990	997,544
Utah	72,306	45,633	57,160	59,165	87,766	91,191	94,255
Wyoming	238,190	356,939	319,346	416,246	410,658	411,482	429,975
Pacific	**673,493**	**798,000**	**490,516**	**474,741**	**546,582**	**630,836**	**657,738**
Alaska	7,331	146,384	170,671	225,280	235,408	248,194	271,311
California	666,162	651,616	319,845	249,459	311,169	382,637	386,424
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	2	5	5	3
Washington	0	0	0	0	0	0	0
Other States	**3,700**	**2,535**	**0**	**0**	**0**	**0**	**0**

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a. As defined by A.G.A. "Net Wellhead Production" equals "Gross Production" less gas for repressuring (see Table 3-3) and therefore includes natural gas liquids.

b. Included in "Other States."

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

TABLE 3-8
MARKETED PRODUCTION OF NATURAL GAS, BY STATE, 1965-1982

(Millions of cubic feet)

Division and State	1965	1970	1975	1979	1980[b]	1981[c]	1982[d]
United States	**16,039,753**	**21,920,642**	**20,108,661**	**20,471,260**	**20,378,787**	**20,177,701**	**18,728,171**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**87,801**	**80,199**	**92,304**	**111,813**	**113,082**	**138,528**	**136,988**
New Jersey	0	0	0	0	0	0	0
New York	3,340	3,358	7,628	15,500	15,643	16,074	15,877
Pennsylvania	84,461	76,841	84,676	96,313	97,439	122,454	121,111
East North Central	**77,877**	**95,967**	**188,859**	**285,097**	**299,195**	**295,352**	**292,837**
Illinois	7,396	4,850	1,440	1,585	1,574	1,295	1,162
Indiana	239	153	346	350	463	330	233
Michigan	34,558	38,851	102,113	159,731	158,302	152,593	153,051
Ohio	35,684	52,113	84,960	123,431	138,856	141,134	138,391
Wisconsin	0	0	0	0	0	0	0
West North Central	**839,751**	**940,922**	**871,006**	**820,352**	**781,124**	**686,361**	**488,026**
Iowa	0	0	0	0	0	0	0
Kansas	793,379	899,955	843,625	797,762	735,035	640,114	429,597
Minnesota	0	0	0	0	0	0	0
Missouri	a	87	30	0	0	0	0
Nebraska	10,720	5,991	2,565	3,208	2,550	2,519	2,280
North Dakota	35,652	34,889	24,786	18,468	42,346	42,573	53,818
South Dakota	a	0	0	914	1,193	1,155	2,331
South Atlantic	**210,976**	**246,070**	**205,683**	**209,267**	**210,175**	**206,148**	**182,634**
Delaware	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0
Florida	a	0	44,383	50,190	45,744	35,938	24,868
Georgia	0	0	0	0	0	0	0
Maryland	408	813	93	28	68	56	36
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	3,152	2,805	6,723	8,544	7,812	8,903	6,880
West Virginia	207,416	242,452	154,484	150,505	156,551	161,251	150,850
East South Central	**245,801**	**204,614**	**172,697**	**290,353**	**349,417**	**393,736**	**379,218**
Alabama	a	627	37,814	85,815	105,527	119,334	122,188
Kentucky	78,976	77,892	60,511	59,520	57,180	61,312	51,924
Mississippi	166,825	126,031	74,345	144,077	185,469	211,371	202,130
Tennessee	a	64	27	941	1,241	1,719	2,976
West South Central	**12,507,167**	**17,922,286**	**16,298,056**	**16,385,658**	**16,195,435**	**15,942,576**	**14,814,626**
Arkansas	82,831	181,351	116,237	109,452	111,808	92,986	124,611
Louisiana	4,466,786	7,788,276	7,090,645	7,266,217	6,939,924	6,780,184	6,171,628
Oklahoma	1,320,995	1,594,943	1,605,410	1,835,366	1,891,824	2,019,199	1,934,412
Texas	6,636,555	8,357,716	7,485,764	7,174,623	7,251,879	7,050,207	6,583,975
Mountain	**1,399,156**	**1,669,891**	**1,801,478**	**1,899,758**	**1,889,983**	**1,891,701**	**1,784,957**
Arizona	a	1,101	208	247	214	187	99
Colorado	126,381	105,804	171,629	191,239	190,814	199,146	213,483
Idaho	0	0	0	0	0	0	0
Montana	28,105	42,705	40,734	53,888	51,867	56,565	56,517
Nevada	0	0	0	0	0	0	0
New Mexico	937,205	1,138,980	1,217,430	1,181,363	1,149,781	1,134,113	992,777
Utah	71,616	42,781	55,354	58,605	87,766	91,191	94,255
Wyoming	235,849	338,520	316,123	414,416	409,541	410,499	427,826
Pacific	**667,639**	**760,693**	**478,578**	**468,962**	**540,376**	**623,299**	**648,885**
Alaska	7,255	111,576	160,270	220,754	230,588	242,564	264,365
California	660,384	649,117	318,308	248,206	309,783	380,730	384,517
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	2	5	5	3
Washington	0	0	0	0	0	0	0
Other States	**3,585**	**0**	**0**	**0**	**0**	**0**	**0**

a. Included in "Other States."
b. Includes 199,063 million cubic feet of nonhydrocarbon gases.
c. Includes 221,878 million cubic feet of nonhydrocarbon gases.
d. Includes 208,492 million cubic feet of nonhydrocarbon gases.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

TABLE 3-9
PRODUCTION OF NATURAL GAS BY ALL INTERSTATE NATURAL GAS PIPELINE COMPANIES, BY STATE, 1978-1982

(Millions of cubic feet)

Division and State	1978	1979	1980	1981	1982
Total United States	**10,865,478**	**11,535,967**	**11,604,272**	**11,959,310**	**10,933,412**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**33,945**	**34,422**	**44,577**	**70,818**	**80,820**
New Jersey	0	0	0	0	0
New York	1,812	5,385	2,729	8,606	8,167
Pennsylvania	32,133	29,037	41,848	62,212	72,653
East North Central	**23,644**	**25,474**	**44,858**	**47,535**	**50,278**
Illinois	192	186	241	195	476
Indiana	33	166	9,587	6,162	38
Michigan	0	0	0	0	0
Ohio	23,419	25,122	35,030	41,178	49,764
Wisconsin	0	0	0	0	0
West North Central	**712,958**	**672,123**	**589,922**	**499,186**	**341,751**
Iowa	0	0	0	0	0
Kansas	698,190	653,468	566,379	472,067	310,949
Minnesota	0	0	0	0	0
Missouri	0	0	0	0	0
Nebraska	3,565	3,645	3,322	3,561	2,944
North Dakota	11,203	14,168	19,103	22,390	25,996
South Dakota	0	842	1,118	1,168	1,862
South Atlantic	**161,064**	**157,408**	**165,947**	**175,378**	**162,179**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	18,439	17,821	14,996	9,659	7,724
Georgia	0	0	0	0	0
Maryland	98	79	71	59	37
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	8,542	8,587	7,818	8,897	6,905
West Virginia	133,985	130,921	143,062	156,763	147,513
East South Central	**125,339**	**161,859**	**195,980**	**216,027**	**201,350**
Alabama	13,259	17,310	36,592	40,867	38,953
Kentucky	50,590	40,859	47,555	50,042	38,527
Mississippi	61,490	103,690	111,833	125,086	123,586
Tennessee	0	0	0	32	284
West South Central	**8,376,897**	**8,982,014**	**9,068,369**	**9,346,583**	**8,689,062**
Arkansas	87,808	77,210	71,596	67,143	87,761
Louisiana	5,146,714	5,210,191	5,161,204	5,264,477	4,759,426
Oklahoma	857,564	944,622	953,838	1,001,138	1,118,021
Texas	2,284,811	2,749,991	2,881,731	3,013,825	2,723,854
Mountain	**1,411,763**	**1,502,667**	**1,494,619**	**1,603,783**	**1,407,972**
Arizona	0	0	0	0	0
Colorado	150,425	155,079	157,385	158,639	160,839
Idaho	0	0	0	524	78
Montana	23,190	36,908	30,458	33,701	31,842
Nevada	0	0	0	0	0
New Mexico	954,919	969,836	936,305	1,003,163	806,724
Utah	38,208	41,519	49,990	63,537	70,855
Wyoming	245,021	299,325	320,481	344,219	337,634
Pacific	**0**	**0**	**0**	**0**	**0**
Undifferentiated[a]	**19,868**	**0**	**0**	**0**	**0**

a. Production not separable by FERC gas areas.

Source: U.S. Department of Energy, Energy Information Administration, *Gas Supplies of Interstate Natural Gas Pipeline Companies, 1982.*

TABLE 3-10
TOTAL OFFSHORE PRODUCTION OF NATURAL GAS AND PERCENT STATE/FEDERALLY CONTROLLED, BY STATE, 1960-1983

	Alaska			California			Louisiana			Texas			Total		
		Percent			Percent			Percent			Percent			Percent	
Year	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS	MMcf	State	OCS
1960^{R}	–	–	–	1,113	100	–	376,093	27	73	30,960	100	–	408,166	33	67
1961^{R}	–	–	–	5,903	100	–	431,364	26	74	13,760	100	–	451,027	29	71
1962^{R}	–	–	–	10,671	100	–	578,032	22	78	41,280	100	–	629,983	28	72
1963^{R}	–	–	–	25,769	100	–	703,230	20	80	30,960	100	–	759,959	26	74
1964^{R}	–	–	–	35,323	100	–	773,559	20	80	30,960	100	–	839,842	26	74
1965^{R}	11	100	–	40,770	100	–	862,738	25	75	27,520	100	–	931,038	31	69
1966^{R}	1,200	100	–	46,839	100	–	1,248,237	23	77	63,682	29	71	1,359,958	26	74
1967^{R}	9,046	100	–	46,732	100	–	1,482,622	27	73	160,798	22	78	1,699,198	30	70
1968^{R}	25,814	100	–	86,565	99	1	1,906,483	26	74	300,689	29	71	2,319,551	34	66
1969^{R}	43,243	100	–	83,904	94	6	2,380,225	23	77	238,056	47	53	2,745,429	29	71
1970^{R}	81,661	100	–	71,121	83	17	2,868,466	21	79	264,661	50	50	3,285,909	26	74
1971^{R}	84,701	100	–	61,448	74	26	3,207,475	18	82	235,600	67	33	3,589,224	23	77
1972^{R}	74,961	100	–	44,781	78	22	3,485,003	17	83	277,282	47	53	3,882,027	22	78
1973^{R}	72,521	100	–	37,883	81	19	3,612,878	15	85	251,038	41	59	3,974,320	19	81
1974^{R}	73,183	100	–	34,505	84	16	3,867,751	13	87	269,577	41	59	4,245,016	17	83
1975^{R}	75,506	100	–	27,272	85	15	3,840,631	13	87	220,530	44	56	4,163,939	17	83
1976^{R}	72,174	100	–	22,459	84	16	4,012,801	13	87	205,993	55	45	4,313,427	17	83
1977^{R}	75,716	100	–	17,527	81	19	4,133,610	12	88	268,250	68	32	4,495,103	17	83
1978^{R}	73,184	100	–	17,668	80	20	4,639,460	11	89	402,000	42	58	5,132,312	15	85
1979^{R}	72,339	100	–	16,417	82	18	4,635,487	10	90	719,208	29	71	5,443,451	14	86
1980^{R}	63,265	100	–	16,182	81	19	4,422,491	10	90	879,020	29	71	5,380,958	14	86
1981^{R}	70,834	100	–	26,237	51	49	4,480,934	8	92	966,983	24	76	5,544,988	12	88
1982^{R}	67,218	100	–	31,758	44	56	4,163,089	9	91	1,104,987	22	78	5,367,053	13	87
1983	68,837	100	–	37,013	37	63	3,403,615	9	91	977,440	15	85	4,486,905	12	88

R – Revised.
Note: Totals may not add due to independent rounding.
Source: U.S. Department of the Interior, Minerals Management Service, *Federal Offshore Statistics.*

TABLE 3-11
INTERSTATE MOVEMENTS AND MOVEMENTS ACROSS U.S. BORDERS OF NATURAL AND SUPPLEMENTAL GAS,* 1982

(Millions of cubic feet)

Division and State	Interstate Movements			Movements Across U.S. Borders		
	Receipts	Deliveries	Net	Receipts	Deliveries	Net
United States	**50,624,713**	**50,624,713**	**0**	**1,203,052**	**321,611**	**881,441**
New England	**462,042**	**193,152**	**268,890**	**36,541**	**0**	**36,541**
Connecticut	165,157	87,972	77,185	0	0	0
Maine	2,672	0	2,672	0	0	0
Massachusetts	185,711	34,106	151,605	32,022	0	32,022
New Hampshire	12,438	2,417	10,021	0	0	0
Rhode Island	96,064	68,657	27,407	0	0	0
Vermont	0	0	0	4,519	0	4,519
Middle Atlantic	**4,075,874**	**2,277,938**	**1,797,936**	**24,139**	**0**	**24,139**
New Jersey	915,301	529,486	385,815	0	0	0
New York	1,026,699	275,000	751,699	24,139	0	24,139
Pennsylvania	2,133,874	1,473,452	660,422	0	0	0
East North Central	**7,836,260**	**4,406,126**	**3,430,134**	**10,027**	**251,634**	**(241,607)**
Illinois	2,326,052	1,177,114	1,148,938	0	0	0
Indiana	1,796,559	1,325,168	471,391	0	0	0
Michigan	829,747	0	829,747	10,027	251,634	(241,607)
Ohio	2,185,567	1,537,796	647,771	0	0	0
Wisconsin	698,335	366,048	332,287	0	0	0
West North Central	**5,332,567**	**4,899,750**	**432,817**	**513,616**	**8,260**	**505,356**
Iowa	999,293	772,274	227,019	0	0	0
Kansas	1,537,130	1,531,396	5,734	0	0	0
Minnesota	253,895	495,415	(241,520)	513,616	8,260	505,356
Missouri	1,314,736	1,030,553	284,183	0	0	0
Nebraska	1,086,512	952,242	134,270	0	0	0
North Dakota	62,464	63,721	(1,257)	0	0	0
South Dakota	78,537	54,149	24,388	0	0	0
South Atlantic	**6,860,759**	**5,691,241**	**1,169,518**	**0**	**0**	**0**
Delaware	31,562	1,890	29,672	0	0	0
District of Columbia	29,299	0	29,299	0	0	0
Florida	292,417	0	292,417	0	0	0
Georgia	1,343,109	1,050,184	292,925	0	0	0
Maryland	886,722	731,799	154,923	0	0	0
North Carolina	931,428	784,137	147,291	0	0	0
South Carolina	1,028,337	931,428	96,909	0	0	0
Virginia	1,038,422	894,597	143,825	0	0	0
West Virginia	1,279,463	1,297,206	(17,743)	0	0	0
East South Central	**15,256,381**	**14,636,535**	**619,846**	**0**	**0**	**0**
Alabama	2,792,147	2,639,141	153,006	0	0	0
Kentucky	3,382,236	3,229,328	152,908	0	0	0
Mississippi	5,475,869	5,381,281	94,588	0	0	0
Tennessee	3,606,129	3,386,785	219,344	0	0	0
West South Central	**5,901,197**	**14,040,666**	**(8,139,469)**	**117,908**	**11**	**117,897**
Arkansas	2,731,040	2,617,671	113,369	0	0	0
Louisiana	1,521,833	6,053,706	(4,531,873)	23,114	0	23,114
Oklahoma	801,580	1,827,898	(1,026,318)	0	0	0
Texas	846,744	3,541,391	(2,694,647)	94,794	11	94,783
Mountain	**2,813,334**	**3,884,518**	**(1,071,184)**	**408,794**	**11,845**	**396,949**
Arizona	1,289,708	1,167,774	121,934	0	1,694	(1,694)
Colorado	278,284	275,904	2,380	0	0	0
Idaho	77,475	374,751	(297,276)	338,147	0	338,147
Montana	18,725	74,957	(56,232)	70,647	10,151	60,496
Nevada	50,225	2,393	47,832	0	0	0
New Mexico	814,677	1,485,634	(670,957)	0	0	0
Utah	142,268	104,038	38,230	0	0	0
Wyoming	141,972	399,067	(257,095)	0	0	0
Pacific	**2,086,300**	**594,784**	**1,491,516**	**92,027**	**49,861**	**42,166**
Alaska	0	0	0	0	49,861	(49,861)
California	1,410,366	0	1,410,366	0	0	0
Hawaii	0	0	0	0	0	0
Oregon	338,866	271,331	67,535	0	0	0
Washington	337,068	323,453	13,615	92,027	0	92,027

a. For detail by country see Table 3-13.
b. For detail by country see Table 3-12.
*Supplemental Gas Supplies totaled 144,811 million cubic feet (MMcf). See Table 3-15.
Note: Totals may not add due to independent rounding.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

TABLE 3-12
EXPORTS OF NATURAL GAS FROM THE UNITED STATES, 1960-1983

(Millions of cubic feet)

Year	Total	Canada	Mexico	Japan[a]
1960	16,100	5,574	10,526	0
1965	27,428	17,892	9,536	0
1966	54,860	44,958	9,902	0
1967	81,595	70,456	11,139	0
1968	93,745	81,647	12,098	0
1969	51,308	34,936	13,390	2,982
1970	69,813	10,860	14,678	44,275
1971	80,365	14,349	15,785	50,231
1972	78,014	15,553	14,579	47,882
1973	77,169	14,824	13,999	48,346
1974	76,789	13,263	13,268	50,258
1975	72,675	10,219	9,454	53,002
1976	64,710	7,506	7,425	49,779
1977	55,626	31	3,940	51,655
1978	52,533	66	4,033	48,434
1979	55,673	76	4,308	51,289
1980	48,731	113	3,886	44,732
1981	59,372	106	3,337	55,929
1982	51,728[b]	162[b]	1,705	49,861
1983	54,687	135	1,694	52,857

a. LNG exports from Alaska.

b. Volume does not include 269,883 MMcf of intransit natural gas deliveries. The difference of 167 MMcf in the volume of intransit receipts and deliveries is due to variations in the accounting and billing practices for companies involved in the transfers.

Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-13
IMPORTS OF NATURAL GAS TO THE UNITED STATES, 1960-1983

(Millions of cubic feet)

Year	Total	Canada	Mexico	Algeria[a]
1960	156,843	109,855	46,988	0
1965	456,694	404,687	52,007	0
1966	480,591	431,955	48,636	0
1967	564,228	513,256	50,972	0
1968	651,885	604,462	47,423	0
1969	726,952	680,107	46,845	0
1970	820,781	778,688	41,336	757
1971	934,547	910,925	20,689	2,933
1972	1,019,495	1,009,092	8,140	2,262
1973	1,032,903	1,027,216	1,632	4,055
1974	959,285	959,063	222	0
1975	953,007	948,114	0	4,893
1976	963,768	953,613	0	10,155
1977	1,010,431	996,723	2,384	11,324
1978	965,545	881,123	0	84,422
1979	1,253,383	1,000,775	0	252,608
1980	984,767	796,507	102,410	85,850
1981	903,950	762,113	105,013	36,824
1982[R]	933,336[b]	783,407[b]	94,794	55,136
1983	918,408	711,923	75,360	131,124

a. Quantities represent total LNG imports from overseas into the U.S.

b. Volume does not include 269,716 MMcf of intransit natural gas receipts.

Source: U.S. Department of Energy, Natural Gas Division.

TABLE 3-14
NATURAL GAS DELIVERED TO CONSUMERS BY STATE, 1965-1982[a]

(Millions of cubic feet)

Division and State	1965	1970	1975	1979	1980	1981	1982[f]
United States	**13,622,968**	**19,018,462**	**17,588,353**	**18,141,267**	**18,216,233**	**17,833,942**	**16,295,245**
New England	**175,051**	**242,507**	**254,070**	**265,770**	**297,506**	**306,576**	**315,775**
Connecticut	40,722	60,524	63,968	67,898	72,512	76,732	77,591
Maine	0	10,691[b]	13,534[b]	14,881[b]	2,166	2,321	2,617
Massachusetts	113,994	146,226	153,461	155,808	181,912	183,900	193,506
New Hampshire	4,084	c	c	c	9,448	10,154	9,993
Rhode Island	16,251	25,066	23,107	27,183	27,477	29,086	27,702
Vermont	0	c	c	c	3,991	4,383	4,366
Middle Atlantic	**1,357,337**	**1,772,600**	**1,451,698**	**1,591,303**	**1,818,067**	**1,895,334**	**1,805,562**
New Jersey	209,306	321,910	243,714	260,025	339,358	389,458	374,702
New York	540,672	707,219	573,699	619,576	733,800	756,522	770,665
Pennsylvania	607,359	743,471	634,285	711,702	744,909	749,354	660,195
East North Central	**2,706,665**	**3,843,966**	**3,718,831**	**3,691,805**	**3,628,619**	**3,493,437**	**3,262,711**
Illinois	742,906	1,145,379	1,080,787	1,123,836	1,074,771	1,049,787	974,545
Indiana	349,827	534,214	467,736	494,333	480,346	487,670	459,114
Michigan	548,390	795,317	865,539	848,612	846,278	783,775	725,050
Ohio	866,589	1,037,801	944,925	861,391	883,613	855,704	795,963
Wisconsin	198,953	331,255	359,844	363,633	343,611	316,501	308,039
West North Central	**1,398,950**	**1,826,005**	**1,686,051**	**1,637,700**	**1,455,928**	**1,311,759**	**1,255,961**
Iowa	236,443	330,363	329,703	280,749	256,900	242,357	228,229
Kansas	385,364	481,483	402,273	481,956	411,494	360,833	317,259
Minnesota	247,561	334,872	327,315	323,172	276,717	256,094	253,359
Missouri	332,219	416,783	362,130	340,195	312,872	277,914	274,897
Nebraska	155,359	207,550	207,371	161,118	152,283	132,059	132,933
North Dakota	15,069	18,645	24,757	25,184	21,660	20,512	24,374
South Dakota	26,935	36,309	32,502	25,326	24,002	21,990	24,910
South Atlantic	**909,869**	**1,465,035**	**1,268,171**	**1,365,035**	**1,390,415**	**1,422,268**	**1,290,529**
Delaware	17,969	26,421	18,603	24,977	29,797	30,640	27,799
District of Columbia	d	d	d	d	27,868	29,023	28,922
Florida	182,093	332,223	271,471	332,664	304,638	324,414	310,076
Georgia	206,560	325,650	322,383	308,177	307,827	308,949	287,463
Maryland	113,943[e]	179,784[e]	163,462[e]	196,774[e]	156,300	172,915	155,507
North Carolina	71,473	145,076	111,276	125,867	147,448	146,223	135,482
South Carolina	84,564	156,559	120,308	116,421	139,214	138,728	95,220
Virginia	88,907	128,492	118,083	129,779	149,980	140,663	139,840
West Virginia	144,360	170,830	142,585	130,376	127,343	130,713	110,220
East South Central	**727,845**	**1,009,983**	**809,664**	**849,942**	**856,158**	**826,214**	**794,910**
Alabama	216,998	278,414	245,287	248,944	242,793	247,289	220,087
Kentucky	142,438	209,991	182,781	191,668	180,368	174,550	159,446
Mississippi	189,603	293,154	183,807	203,655	219,828	198,396	224,857
Tennessee	178,806	228,424	197,789	205,675	213,169	205,979	190,520
West South Central	**3,848,796**	**5,545,215**	**5,332,025**	**5,723,426**	**5,873,159**	**5,686,628**	**4,869,844**
Arkansas	255,637	359,338	241,803	230,807	260,319	252,553	213,187
Louisiana	857,118	1,482,275	1,425,686	1,615,568	1,523,691	1,522,261	1,156,364
Oklahoma	389,314	475,974	565,387	671,025	639,642	592,220	556,481
Texas	2,346,727	3,227,628	3,099,149	3,206,026	3,449,507	3,319,594	2,943,812
Mountain	**757,368**	**1,020,744**	**982,840**	**910,084**	**842,444**	**798,597**	**731,854**
Arizona	136,297	168,994	139,130	152,366	144,511	157,993	116,536
Colorado	219,602	277,739	294,760	263,629	241,765	197,998	202,482
Idaho	32,831	42,367	56,182	49,759	44,835	41,034	36,870
Montana	64,320	81,992	75,441	62,706	54,460	48,533	47,887
Nevada	27,679	52,558	61,251	84,433	58,284	72,584	46,303
New Mexico	130,072	191,818	172,638	131,248	146,579	134,220	113,564
Utah	105,524	120,814	116,620	111,354	106,647	101,007	110,615
Wyoming	41,043	84,462	66,818	54,589	45,363	45,228	57,597
Pacific	**1,741,087**	**2,292,407**	**2,055,003**	**2,106,202**	**2,053,937**	**2,093,122**	**1,968,088**
Alaska	5,917	41,672	66,815	144,203	122,966	106,207	143,395
California	1,572,367	2,017,393	1,727,729	1,726,714	1,729,650	1,789,444	1,647,535
Hawaii	0	0	0	0	3,131	2,899	2,804
Oregon	55,383	89,776	101,980	84,432	73,083	71,914	67,412
Washington	107,420	143,566	158,479	150,853	125,107	122,658	106,942

a. Includes deliveries made directly to end users in addition to gas utility sales as shown in Table 6-7.
b. Includes New Hampshire and Vermont.
c. Included in Maine.
d. Included in Maryland.
e. Includes District of Columbia.
f. Includes 144,811 million cubic feet (MMcf) of Supplemental Gas Supplies, less 208,492 MMcf of Nonhydrocarbon Gases.
Note: Totals may not add due to independent rounding.
Sources: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual,* 1982.

TABLE 3-15
SUPPLEMENTAL GAS SUPPLIES BY STATE, 1982

(Millions of cubic feet)

Division and State	Total	Synthetic Natural Gas	Propane-Air	Refinery Gas	Other[a]
United States	**144,811**	**103,025**	**13,555**	**12,001**	**16,230**
New England	**20,034**	**13,739**	**6,295**	**0**	**0**
Connecticut	1,077	0	1,077	0	0
Maine	71	0	71	0	0
Massachusetts	17,586	13,739	3,847	0	0
New Hampshire	582	0	582	0	0
Rhode Island	718	0	718	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**17,757**	**2,741**	**1,907**	**10,962**	**2,147**[b,c]
New Jersey	9,786	392	786	7,957	651[b]
New York	2,350	606	248	0	1,496[c]
Pennsylvania	5,621	1,743	873	3,005	0
East North Central	**89,799**	**83,191**	**1,048**	**1,038**	**4,522**[d,e]
Illinois	19,005	18,761	244	0	0
Indiana	3,496	0	406	1,038	2,052[e]
Michigan	2,473	0	3	0	2,470[d]
Ohio	64,812	64,430	382	0	0
Wisconsin	13	0	13	0	0
West North Central	**2,749**	**0**	**2,727**	**0**	**22**[c]
Iowa	68	0	46	0	22[c]
Kansas	0	0	0	0	0
Minnesota	337	0	337	0	0
Missouri	2,129	0	2,129	0	0
Nebraska	63	0	63	0	0
North Dakota	102	0	102	0	0
South Dakota	50	0	50	0	0
South Atlantic	**1,812**	**454**	**1,312**	**0**	**46**[b]
Delaware	56	0	56	0	0
District of Columbia	46	0	0	0	46[b]
Florida	0	0	0	0	0
Georgia	151	0	151	0	0
Maryland	984	436	548	0	0
North Carolina	58	0	58	0	0
South Carolina	63	0	63	0	0
Virginia	454	18	436	0	0
West Virginia	0	0	0	0	0
East South Central	**312**	**0**	**211**	**0**	**101**[d]
Alabama	91	0	91	0	0
Kentucky	131	0	30	0	101[d]
Mississippi	0	0	0	0	0
Tennessee	90	0	90	0	0
West South Central	**7**	**0**	**7**	**0**	**0**
Arkansas	6	0	6	0	0
Louisiana	0	0	0	0	0
Oklahoma	0	0	0	0	0
Texas	1	0	1	0	0
Mountain	**9,400**	**0**	**9**	**0**	**9,391**[d]
Arizona	0	0	0	0	0
Colorado	8,877	0	4	0	8,873[d]
Idaho	0	0	0	0	0
Montana	0	0	0	0	0
Nevada	2	0	2	0	0
New Mexico	3	0	3	0	0
Utah	0	0	0	0	0
Wyoming	518	0	0	0	518[d]
Pacific	**2,938**	**2,899**	**39**	**0**	**0**
Alaska	0	0	0	0	0
California	0	0	0	0	0
Hawaii	2,899	2,899	0	0	0
Oregon	24	0	24	0	0
Washington	15	0	15	0	0

a. Includes coke oven gas, biomass gas, manufactured gas, and air injection for Btu stabilization.
b. Manufactured gas. c. Biomass gas. d. Air injection for Btu stabilization. e. Coke oven gas.
Note: Totals may not add due to independent rounding.
Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

Table 3-16

NATURAL GAS TREATED FOR NATURAL GASOLINE AND ALLIED PRODUCTS, AND QUANTITIES AND VALUE OF PRODUCTS RECOVERED, 1960-1983[a]

		Products Recovered							
	Natural Gas Treated	Natural Gasoline		Liquefied Petroleum Gases		Finished Gasoline and Naphtha		Other Products[b]	
Year	(Millions of cubic feet)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)	Quantity (Thousands of gallons)	Value (Thousands of dollars)
1960	9,768,189	4,479,454	313,058	8,444,074	391,566	503,659	43,400	859,394	60,361
1961	10,261,669	4,666,319	311,966	9,085,465	370,186	473,496	31,996	965,648	68,057
1962	11,089,241	4,772,260	333,965	9,409,083	353,334	450,991	37,347	1,021,271	73,505
1963	12,430,353	4,899,323	320,131	10,302,250	359,770	499,901	40,922	1,135,743	78,120
1964	13,176,126	5,286,703	341,714	10,743,591	362,792	506,505	37,815	1,206,973	84,071
1965	13,772,101	5,457,367	360,603	11,257,267	417,249	439,267	36,270	1,391,436	97,481
1966	14,924,429	5,564,139	366,332	12,134,294	527,223	380,135	33,380	1,604,154	120,426
1967	15,641,633	5,850,271	389,156	13,717,861	632,994	307,263	28,044	1,731,727	129,742
1968	16,316,674	6,210,708	411,695	14,753,004	552,335	280,728	26,577	1,868,622	133,407
1969	17,655,108	6,633,018	457,986	15,895,194	498,927	374,514	36,954	1,467,396	108,144
1970	18,509,309	6,935,838	468,602	16,783,662	672,088	240,702	23,234	1,488,270	111,188
1971	19,252,807	6,942,474	496,676	17,540,628	769,397	224,784	23,210	1,240,344	96,771
1972	19,906,893	6,875,442	500,425	18,678,912	828,718	186,732	20,737	1,063,986	83,261
1973	19,679,291	6,791,736	568,214	18,775,386	1,188,289	136,038	13,902	942,606	86,668
1974	18,684,480	6,212,766	974,825	18,813,732	1,980,769	52,878	10,028	797,664	122,305
1975	17,748,426	5,620,608	777,637	18,651,612	1,893,890	45,528	8,411	712,488	92,650
1976	17,717,951	5,575,584	882,718	18,369,372	2,298,647	40,572	9,650	670,362	93,074
1977	17,569,835	5,587,134	c	18,604,152	c	30,156	c	577,668	c
1978	c	5,306,784	c	18,124,512	c	28,896	c	567,420	c
1979	c	4,042,668	c	26,008,878	c	271,908	c	917,952	c
1980	c	4,560,696	c	18,518,304	c	239,694	c	864,360	c
1981	c	4,471,740	c	19,259,772	c	154,014	c	773,472	c
1982	c	3,850,308	c	19,277,622	c	93,030	c	545,916	c
1983	c	3,015,684	c	20,142,276	c	128,772	c	608,160	c

a. Due to changes in reporting requirements, 1979-1983 data is not comparable with prior years.
b. Includes plant condensate, kerosene, distillate fuel oil, and miscellaneous products.
c. Not available.

Source: U.S. Department of Energy, Energy Information Administration, *Petroleum Supply Annual*, 1983.

TABLE 3-17
NUMBER OF PRODUCING GAS WELLS, BY STATE, 1965–1983[a]

Division and State	1965	1970	1975	1980	1981	1982[R]	1983[P]
United States	**111,680**	**117,483**	**132,095**	**182,004**	**198,839**	**210,753**	**214,354**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**18,666**	**16,839**	**18,200**	**21,976**	**24,136**	**25,969**	**25,969**
New Jersey	0	0	0	0	0	0	0
New York	1,150	600	900	2,076	2,636	2,969	2,969
Pennsylvania	17,516	16,239	17,300	19,900	21,500	23,000	23,000
East North Central	**7,626**	**9,082**	**11,110**	**18,442**	**20,643**	**23,389**	**25,963**
Illinois	25	8	41	70	70	57	67
Indiana	275	50	478	698	720	736	736
Michigan	226	1,235	209	423	448	484	539
Ohio	7,100	7,789	10,382	17,251	19,405	22,112	24,621
Wisconsin	0	0	0	0	0	0	0
West North Central	**7,281**	**8,735**	**8,925**	**12,935**	**15,679**	**13,927**	**11,641**
Iowa	0	0	0	0	0	0	0
Kansas	7,200	8,660	8,865	12,820	15,550	13,800	11,494
Minnesota	0	0	0	0	0	0	0
Missouri	11	11	3	0	0	0	0
Nebraska	39	35	19	22	25	23	24
North Dakota	31	29	18	80	65	66	123
South Dakota	0	0	20	13	39	38	0
South Atlantic	**19,719**	**20,833**	**21,901**	**26,167**	**27,498**	**27,756**	**29,967**
Delaware	0	0	0	0	0	0	0
District of Colmbia	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	0
Georgia	0	0	0	0	0	0	0
Maryland	20	16	15	9	10	8	0
North Carolina	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0
Virginia	99	115	186	258	288	298	292
West Virginia	19,600	20,702	22,700	25,900	27,200	27,450	29,675
East South Central	**6,490**	**7,255**	**7,684**	**8,922**	**9,261**	**9,644**	**9,714**
Alabama	0	2	45	314	385	489	540
Kentucky	6,100	6,913	7,386	7,984	8,151	8,219	8,234
Mississippi	370	325	248	447	470	596	525
Tennessee	20	15	5	177	255	340	415
West South Central	**40,502**	**42,283**	**48,440**	**71,447**	**77,711**	**83,417**	**81,274**
Arkansas	744	1,008	1,128	1,114	1,600	1,959	1,850
Louisiana	8,563	9,690	11,359	16,190	17,048	16,586	13,894
Oklahoma	7,447	8,168	9,769	16,419	18,451	20,742	22,135
Texas	23,748	23,417	26,184	37,724	40,612	44,130	43,395
Mountain	**10,352**	**11,425**	**14,189**	**20,914**	**22,713**	**25,196**	**24,570**
Arizona	8	4	1	1	1	1	0
Colorado	701	861	1,380	2,997	3,543	4,008	4,072
Idaho	0	0	0	0	0	0	0
Montana	784	739	1,235	1,881	2,140	2,111	2,043
Nevada	0	0	0	0	0	0	0
New Mexico	8,010	8,848	10,352	14,571	15,560	16,967	16,214
Utah	148	173	271	200	226	282	322
Wyoming	701	800	950	1,264	1,243	1,827	1,919
Pacific	**1,044**	**1,031**	**1,646**	**1,201**	**1,198**	**1,455**	**1,185**
Alaska	11	51	61	71	79	97	103
California	1,033	980	1,585	1,125	1,110	1,352	1,082
Hawaii	0	0	0	0	0	0	0
Oregon	0	0	0	5	9	6	0
Washington	0	0	0	0	0	0	0
Other States	**0**	**0**	**0**	**0**	**0**	**0**	**71**
Federal Waters	**b**	**b**	**b**	**b**	**b**	**b**	**4,000**

a. Data pertain only to dry gas and condensate wells. Data as of December 31.
b. "Federal Waters" is included in Texas, Louisiana, and California totals.
P—Preliminary.
R—Revised.
Source: Preliminary numbers taken from *World Oil*, February 15, 1984. Revised numbers taken from U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

TABLE 3-18
NEW GAS WELL COMPLETIONS, BY STATE, 1960-1983[a]

Division and State	1960	1965	1970	1975	1980	1981	1982[R]	1983
United States	**3,952**	**4,724**	**3,840**	**7,580**	**15,730**	**17,894**	**18,952**	**15,628**
New England	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**297**	**304**	**267**	**876**	**1,459**	**2,116**	**2,190**	**1,354**
New Jersey	0	0	0	0	0	0	0	0
New York	28	18	17	236	360	439	456	424
Pennsylvania	269	286	250	640	1,099	1,677	1,734	930
East North Central	**306**	**317**	**711**	**610**	**2,021**	**2,902**	**2,601**	**3,627**
Illinois	8	8	5	5	8	18	10	16
Indiana	12	10	4	17	46	31	24	22
Michigan	26	36	19	33	54	42	46	47
Ohio	260	263	683	555	1,913	2,811	2,521	3,542
Wisconsin	0	0	0	0	0	0	0	0
West North Central	**202**	**207**	**111**	**440**	**607**	**664**	**874**	**530**
Iowa	0	0	0	0	0	0	0	0
Kansas	200	206	108	438	573	616	810	489
Minnesota	0	0	0	0	0	0	0	0
Missouri	0	0	0	1	1	3	11	2
Nebraska	2	1	2	1	14	8	9	17
North Dakota	0	0	1	0	15	19	25	10
South Dakota	0	0	0	0	4	18	19	12
South Atlantic	**694**	**697**	**553**	**582**	**1,420**	**1,485**	**1,749**	**1,582**
Delaware	0	0	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0	0	0
Florida	0	0	0	0	0	0	2	0
Georgia	0	0	0	0	0	0	0	0
Maryland	0	1	0	0	0	0	0	0
North Carolina	0	0	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0	0	0
Virginia	8	1	0	26	9	29	52	12
West Virginia	686	695	553	556	1,411	1,456	1,695	1,570
East South Central	**275**	**195**	**132**	**218**	**413**	**426**	**495**	**662**
Alabama	0	0	5	26	61	49	63	69
Kentucky	264	177	111	123	126	163	225	203
Mississippi	9	15	12	31	58	90	70	52
Tennessee	2	3	4	38	168	124	137	338
West South Central	**1,484**	**2,478**	**1,670**	**3,611**	**7,647**	**7,820**	**8,536**	**6,304**
Arkansas	36	44	36	23	121	153	164	189
Louisiana	282	542	539	815	1,779	1,678	1,414	897
Oklahoma	434	549	321	638	2,063	2,182	2,613	1,901
Texas	732	1,343	774	2,135	3,684	3,807	4,345	3,317
Mountain	**577**	**451**	**335**	**1,193**	**2,081**	**2,382**	**2,378**	**1,478**
Arizona	1	0	0	0	0	0	0	1
Colorado	116	53	47	300	481	583	601	526
Idaho	0	0	0	0	0	0	0	0
Montana	8	10	74	279	252	223	250	121
Nevada	0	0	0	0	0	1	0	0
New Mexico	374	303	159	517	996	1,246	1,106	547
Utah	23	27	10	19	98	115	156	130
Wyoming	55	58	45	78	254	213	265	153
Pacific	**117**	**75**	**61**	**50**	**82**	**99**	**120**	**83**
Alaska	3	13	5	4	3	4	10	2
California	114	62	56	46	77	92	109	81
Hawaii	0	0	0	0	0	0	0	0
Oregon	0	0	0	0	2	3	1	0
Washington	0	0	0	0	0	0	0	0
Federal Waters	**0**	**0**	**0**	**0**	**0**	**0**	**10**	**8**

a. Includes condensate wells for all years except 1960.
R – Revised.
Note: Revision not detailed by state.
Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1983.

TABLE 3-19
NEW FIELD WILDCAT WELLS DRILLED AND PROPORTION SUCCESSFUL, 1960-1983

Year	Total Drilled	Dry	Productive	Percent Productive
1960	7,320	6,575	745	10.2
1961	6,909	6,164	745	10.8
1962	6,794	6,007	787	11.6
1963	6,570	5,801	769	11.7
1964	6,632	5,931	701	10.6
1965	6,182	5,544	638	10.3
1966	6,158	5,523	635	10.3
1967	5,271	4,727	544	10.3
1968	5,205	4,763	442	8.5
1969	5,956	5,421	535	9.0
1970	5,069	4,576	493	9.7
1971	4,463	4,027	436	9.7
1972	5,086	4,520	566	11.1
1973	4,989	4,288	701	14.1
1974	5,652	4,847	805	14.2
1975	6,104	5,228	876	14.4
1976	5,840	4,854	986	16.9
1977	6,101	5,097	1,004	16.5
1978	6,505	5,522	983	15.1
1979	6,413	5,251	1,162	18.1
1980	7,034	5,694	1,340	19.0
1981	8,052	6,629	1,423	17.7
1982	7,912	6,512	1,400	17.7
1983	6,487	5,349	1,138	17.5

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1983.

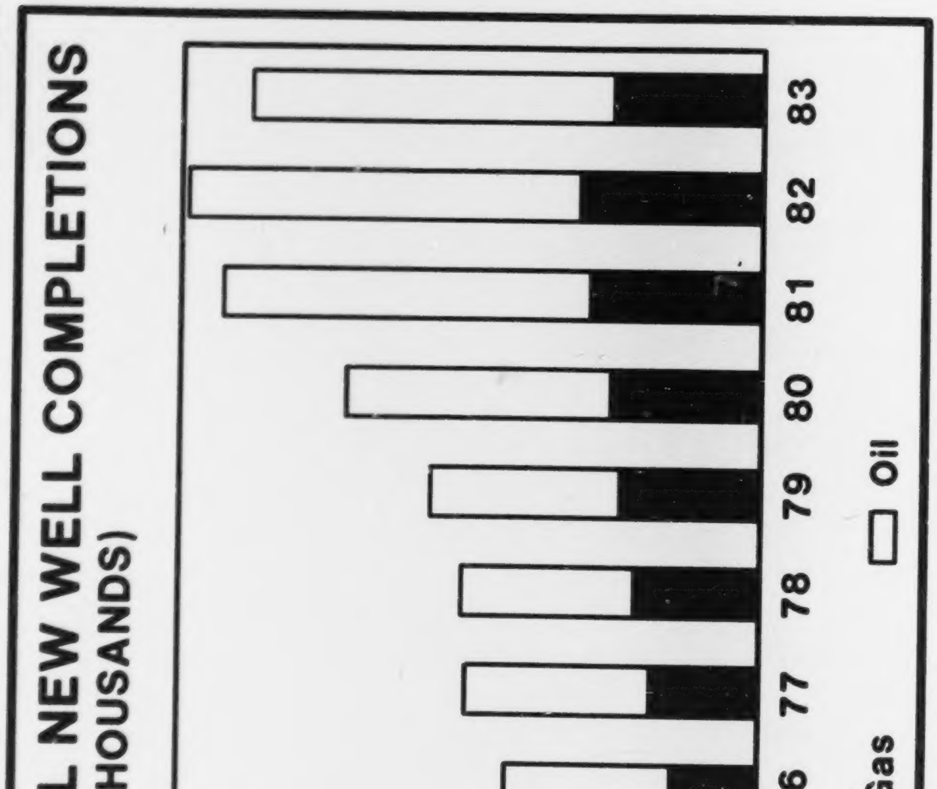
TABLE 3-20
NEW WELL COMPLETIONS, BY TYPE OF WELL, 1960-1983

Year	Total[a]	Oil	Condensate	Gas	Service[a]	Dry
1960	46,751	21,186	1,306	3,952	2,733	17,574
1961	46,962	21,101	749	4,915	3,091	17,106
1962	46,179	21,249	123	5,725	2,400	16,682
1963	43,653	20,288	b	4,751	2,267	16,347
1964	45,236	20,620	b	4,855	2,273	17,488
1965	41,432	18,761	b	4,724	1,922	16,025
1966	37,881	16,447	b	4,167	1,497	15,770
1967	33,630	15,329	b	3,659	1,396	13,246
1968	32,038	14,331	b	3,456	1,439	12,812
1969	33,677	14,368	b	4,083	1,490	13,736
1970	29,341	13,020	b	3,840	1,221	11,260
1971	27,250	11,858	b	3,830	1,399	10,163
1972	28,725	11,306	b	4,928	1,434	11,057
1973	27,551	9,902	b	6,385	959	10,305
1974	32,756	12,784	b	7,240	1,058	11,674
1975	38,732	16,408	b	7,580	1,497	13,247
1976	41,305	17,059	b	9,085	1,540	13,621
1977	46,328	18,912	b	11,378	1,346	14,692
1978	48,434	17,775	b	13,064	1,377	16,218
1979	51,203	19,383	b	14,681	1,387	15,752
1980	62,427	27,026	b	15,730	1,582	18,089
1981	80,408	37,671	b	17,894	1,870	22,973
1982R	87,969	40,301	b	18,952	2,174	26,542
1983	78,384	37,207	b	15,628	2,055	23,494

a. Excludes stratigraphic and core tests.
b. Included with gas after 1962.

Source: *Oil and Gas Journal* prior to 1968, American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1983.

CHART 3-2



TOTAL GAS AND OIL NEW WELL COMPLETIONS
(THOUSANDS)

REFERENCE: TABLE 3-20

TABLE 3-21
NEW GAS WELL COMPLETIONS, BY TYPE OF WELL AND STATE, 1983

Division and State	Total	Oil	Gas	Service*	Dry
United States	**78,542**	**37,207**	**15,628**	**2,055**	**23,494**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**3,014**	**1,511**	**1,354**	**79**	**70**
New Jersey	0	0	0	0	0
New York	483	50	424	1	8
Pennsylvania	2,531	1,461	930	78	62
East North Central	**10,701**	**4,447**	**3,627**	**147**	**2,479**
Illinois	2,753	1,460	16	86	1,191
Indiana	1,027	419	22	35	551
Michigan	823	351	47	12	413
Ohio	6,098	2,217	3,542	14	324
Wisconsin	0	0	0	0	0
West North Central	**8,662**	**4,335**	**530**	**234**	**3,431**
Iowa	0	0	0	0	0
Kansas	7,406	3,757	489	222	2,912
Minnesota	0	0	0	0	0
Missouri	284	106	2	10	60
Nebraska	355	129	17	1	208
North Dakota	537	326	10	1	200
South Dakota	80	17	12	0	51
South Atlantic	**2,088**	**306**	**1,582**	**43**	**154**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	24	9	0	0	15
Georgia	2	0	0	0	2
Maryland	0	0	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	37	13	12	0	12
West Virginia	2,025	284	1,570	43	125
East South Central	**4,968**	**1,724**	**662**	**131**	**2,451**
Alabama	190	21	69	0	100
Kentucky	3,278	1,298	203	131	1,646
Mississippi	573	139	52	0	382
Tennessee	927	266	338	0	323
West South Central	**40,094**	**20,234**	**6,304**	**782**	**12,772**
Arkansas	860	305	189	20	346
Louisiana	4,575	1,780	897	79	1,819
Oklahoma	10,043	5,047	1,901	31	3,062
Texas	24,616	13,102	3,317	652	7,545
Mountain	**5,578**	**2,114**	**1,478**	**132**	**1,836**
Arizona	16	0	1	0	10
Colorado	1,467	372	526	3	566
Idaho	2	0	0	0	2
Montana	570	186	121	5	258
Nevada	9	2	0	0	7
New Mexico	1,601	708	547	39	303
Utah	421	141	130	20	130
Wyoming	1,492	705	153	65	560
Pacific	**3,355**	**2,523**	**83**	**507**	**240**
Alaska	190	163	2	16	9
California	3,163	2,360	81	491	229
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	2	0	0	0	2
Federal Waters	**82**	**13**	**8**	**0**	**61**

*Excludes stratigraphic and core tests, which totaled 158 in 1983.
Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics,* Fourth Quarter 1983.

TABLE 3-22
HOLES DRILLED AND PROPORTION SUCCESSFUL, BY TYPE OF EXPLORATION HOLE, 1960–1983

	Outposts-Extensions	New-Pool Wildcats	Deeper-Pool Tests	Shallower-Pool Tests	New-Field Wildcats	Total
1960						
Drilled	2,431	1,342	495	116	7,320	11,704
Dry	1,603	1,000	309	28	6,575	9,515
Productive	828	342	186	88	745	2,189
Percent Productive	34.1	25.5	37.6	75.9	10.2	18.7
1965						
Drilled	1,131	1,707	353	93	6,182	9,466
Dry	805	1,374	242	40	5,544	8,005
Productive	326	333	111	53	638	1,461
Percent Productive	28.8	19.5	31.4	57.0	10.3	15.4
1970						
Drilled	1,228	1,043	260	93	5,069	7,693
Dry	832	808	167	39	4,576	6,422
Productive	396	235	93	54	493	1,271
Percent Productive	32.2	22.5	35.8	58.1	9.7	16.5
1975						
Drilled	1,577	1,112	288	133	6,104	9.214
Dry	905	719	181	38	5,228	7,071
Productive	672	393	107	95	876	2,143
Percent Productive	42.6	35.3	37.2	71.4	14.4	23.3
1976						
Drilled	1,718	1,249	264	163	5,840	9.234
Dry	942	790	159	40	4,854	6,785
Productive	776	459	105	123	986	2,449
Percent Productive	45.2	36.7	39.8	75.5	16.9	26.5
1977						
Drilled	1,914	1,376	366	204	6,101	9,961
Dry	1,040	870	236	32	5,097	7,275
Productive	874	506	130	172	1,004	2,686
Percent Productive	45.7	36.8	35.5	84.3	16.5	27.0
1978						
Drilled	2,024	1,549	380	219	6,505	10,677
Dry	1,180	958	247	42	5,522	7,949
Productive	844	591	133	177	983	2,728
Percent Productive	41.7	38.2	35.0	80.8	15.1	25.6
1979						
Drilled	1,853	1,486	486	246	6,374	10,445
Dry	1,003	841	304	61	5,212	7,421
Productive	850	645	182	185	1,162	3,024
Percent Productive	45.9	43.4	37.5	75.2	18.2	29.0
1980						
Drilled	1,981	1,819	789	293	7,034	11,916
Dry	1,104	952	523	69	5,694	8,342
Productive	877	867	266	224	1,340	3,574
Percent Productive	44.3	47.7	33.7	76.4	19.1	30.0
1981						
Drilled	3,028	2,340	1,299	449	8,052	15,168
Dry	1,541	1,353	907	153	6,629	10,583
Productive	1,487	987	392	296	1,423	4,585
Percent Productive	49.1	42.2	30.2	65.9	17.7	30.2
1982						
Drilled	3,328	2,870	1,782	613	7,914	16,507
Dry	1,864	1,699	1,315	233	6,512	11,623
Productive	1,464	1,171	467	380	1,402	4,884
Percent Productive	44.0	40.8	26.2	62.0	17.7	29.6
1983						
Drilled	2,498	2,281	1,979	640	6,489	13,887
Dry	1,437	1,340	1,491	288	5,351	9,907
Productive	1,061	941	488	352	1,138	3,980
Percent Productive	42.5	41.3	24.7	55.0	17.5	28.7

Source: Committee on Statistics of Drilling, *American Association of Petroleum Geologists Bulletin*, 1983.

TABLE 3-23
WELLS AND DRY HOLES DRILLED AS EXPLORATORY TESTS, BY STATE AND TYPE OF WELL, 1983

Division and State	Total Drilled	Dry Holes	Producers Total	Producers Oil	Producers Gas
United States	**13,890**	**9,908**	**3,982**	**2,093**	**1,889**
New England	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**164**	**17**	**147**	**15**	**132**
New Jersey	0	0	0	0	0
New York	43	2	41	2	39
Pennsylvania	121	15	106	13	93
East North Central	**1,601**	**1,244**	**357**	**234**	**123**
Illinois	639	555	84	80	4
Indiana	456	370	86	81	5
Michigan	323	262	61	45	16
Ohio	183	57	126	28	98
Wisconsin	0	0	0	0	0
West North Central	**2,035**	**1,545**	**490**	**395**	**95**
Iowa	0	0	0	0	0
Kansas	1,559	1,208	351	278	73
Minnesota	0	0	0	0	0
Missouri	50	37	13	13	0
Nebraska	173	134	39	23	16
North Dakota	205	122	83	80	3
South Dakota	48	44	4	1	3
South Atlantic	**145**	**47**	**98**	**11**	**87**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	14	13	1	1	0
Georgia	0	0	0	0	0
Maryland	2	2	0	0	0
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	15	6	9	4	5
West Virginia	114	26	88	6	82
East South Central	**1,968**	**1,328**	**640**	**338**	**302**
Alabama	86	63	23	2	21
Kentucky	973	764	209	165	44
Mississippi	266	237	29	23	6
Tennessee	643	264	379	148	231
West South Central	**6,195**	**4,441**	**1,754**	**810**	**944**
Arkansas	152	148	4	2	2
Louisiana	574	540	34	15	19
Oklahoma	647	438	209	110	99
Texas	4,822	3,315	1,507	683	824
Mountain	**1,515**	**1,108**	**407**	**230**	**177**
Arizona	10	10	0	0	0
Colorado	510	357	153	79	74
Idaho	2	2	0	0	0
Montana	191	152	39	28	11
Nevada	9	7	2	2	0
New Mexico	218	138	80	34	46
Utah	136	80	56	34	22
Wyoming	439	362	77	53	24
Pacific	**227**	**138**	**89**	**60**	**29**
Alaska	3	2	1	0	1
California	222	134	88	60	28
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	2	2	0	0	0
Federal Waters	**40**	**40**	**0**	**0**	**0**

Source: American Petroleum Institute, *Quarterly Review of Drilling Statistics*, Fourth Quarter 1983.

TABLE 3-24
DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1981-1982[a]

	Total	Oil	Gas[b]	Dry
		1981		
Wells drilled	80,816	38,725	17,533	24,558
Footage drilled (000)	388,800	161,982	100,258	126,561
Expenditures (000)	$36,665,457	$13,022,804	$12,248,134	$11,394,519
Average depth per well (ft)	4,811	4,183	5,718	5,154
Average cost per well	$ 453,691	$ 336,289	$ 698,576	$ 463,984
Average cost per foot	$ 94.30	$ 80.40	$ 122.17	$ 90.03
		1982		
Wells drilled	76,652	35,865	17,052	23,735
Footage drilled (000)	362,618	144,304	100,804	117,510
Expenditure (000)	$39,428,118	$12,458,580	$14,737,668	$12,231,870
Average depth per well (ft)	4,731	4,024	5,912	4,951
Average cost per well	$ 514,378	$ 347,374	$ 864,278	$ 515,352
Average cost per foot	$ 108.73	$ 86.33	$ 146.20	$ 104.09

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1983.

TABLE 3-25
OFFSHORE DRILLING OPERATIONS AND EXPENDITURES, BY TYPE OF WELL, 1981-1982[a]

	Total	Oil	Gas[b]	Dry
		1981		
Wells drilled	1,476	415	515	546
Footage drilled (000)	14,422	3,467	5,168	5,787
Expenditures (000)	$5,550,752	$1,074,329	$2,122,170	$2,354,254
Average depth per well (ft)	9,771	8,355	10,035	10,599
Average cost per well	$3,760,672	$2,588,744	$4,120,718	$4,311,820
Average cost per foot	$ 384.88	$ 309.87	$ 410.64	$ 406.82
		1982		
Wells drilled	1,464	466	442	536
Footage drilled (000)	14,537	4,269	4,592	5,676
Expenditures (000)	$6,153,820	$1,563,370	$2,165,054	$2,425,396
Average depth per well (ft)	9,930	8,784	10,388	10,590
Average cost per well	$4,203,429	$3,216,811	$4,898,313	$4,524,993
Average cost per foot	$ 423.32	$ 366.20	$ 471.52	$ 427.29

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees, but excludes exploration, development and production costs and expenditures for service wells.
b. Includes condensate wells.
Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1983.

TABLE 3-26
AVERAGE COST PER FOOT BY TYPE OF WELL, BY DEPTH CLASSES, 1978-1982[a]

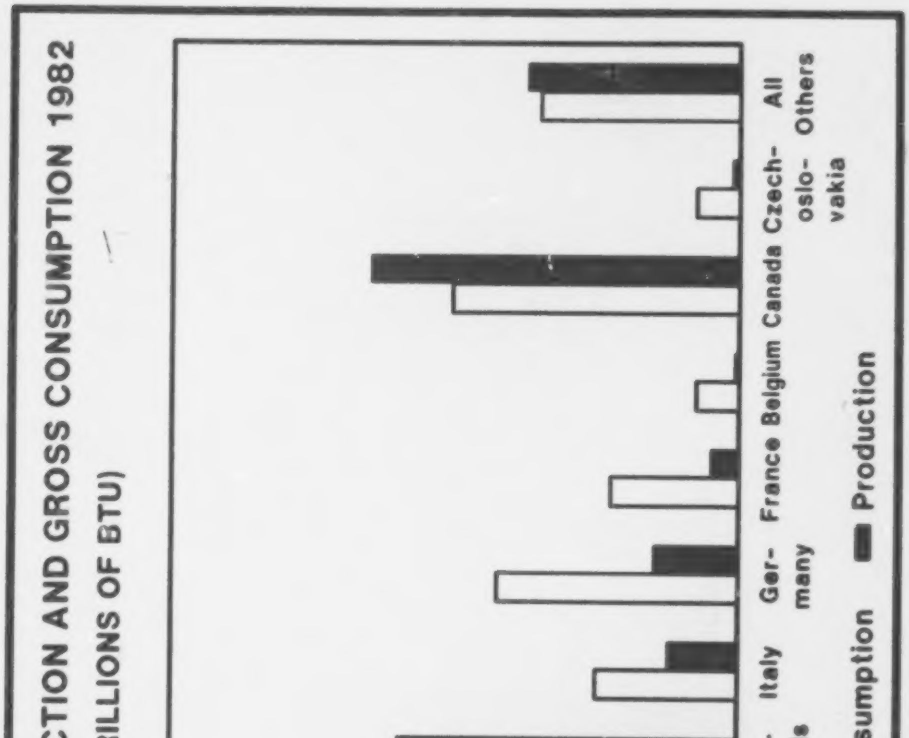
Depth Range (in feet)	Total	Oil	Gas	Dry
		1978		
0- 1,249	$ 27.92	$ 30.22	$ 26.00	$ 23.65
1,250- 2,499	28.02	30.20	30.53	22.07
2,500- 3,749	28.08	30.75	33.32	19.65
3,750- 4,999	28.54	33.24	32.46	20.80
5,000- 7,499	37.86	42.16	42.49	30.01
7,500- 9,999	59.33	56.16	72.68	51.69
10,000-12,499	91.15	96.61	98.09	81.98
12,500-14,999	118.11	122.35	128.22	107.50
15,000-17,499	150.87	179.18	153.74	140.37
17,500-19,999	195.17	259.96	179.93	201.69
20,000 and over	247.14	184.73	268.66	226.39
		1979		
0- 1,249	$ 31.84	$ 33.31	$ 31.52	$ 28.44
1,250- 2,499	31.86	35.78	32.01	25.19
2,500- 3,749	31.02	34.50	33.64	23.71
3,750- 4,999	32.26	37.68	34.27	25.02
5,000- 7,499	43.81	48.57	48.23	34.97
7,500- 9,999	69.98	67.09	83.64	60.10
10,000-12,499	106.12	112.48	114.04	94.01
12,500-14,999	139.26	145.70	150.77	125.12
15,000-17,499	191.82	186.10	196.77	187.71
17,500-19,999	240.59	140.99	237.83	245.15
20,000 and over	378.62	220.84	382.45	399.21
		1980		
0- 1,249	$ 35.62	$ 37.13	$ 35.61	$ 30.89
1,250- 2,499	36.04	40.11	35.04	28.73
2,500- 3,749	36.82	41.31	41.00	26.37
3,750- 4,999	38.40	44.65	41.09	28.39
5,000- 7,499	51.18	56.22	56.73	40.23
7,500- 9,999	77.09	76.70	89.68	65.71
10,000-12,499	121.97	126.20	129.45	110.52
12,500-14,999	170.50	167.77	179.17	163.04
15,000-17,499	237.23	258.21	233.38	236.34
17,500-19,999	285.63	406.31	300.57	258.49
20,000 and over	396.84	b	396.20	397.63
		1981		
0- 1,249	$ 46.17	$ 46.76	$ 51.62	$ 42.10
1,250- 2,499	42.00	47.92	39.97	31.46
2,500- 3,749	43.09	49.21	46.77	30.82
3,750- 4,999	46.24	54.92	48.09	34.41
5,000- 7,499	63.16	70.74	68.86	49.94
7,500- 9,999	95.86	94.92	109.58	86.32
10,000-12,499	148.80	145.50	163.37	138.05
12,500-14,999	207.53	199.99	228.61	192.20
15,000-17,499	286.38	270.92	314.25	260.55
17,500-19,999	412.30	348.08	433.37	393.12
20,000 and over	509.90	508.40	443.82	575.99
		1982		
0- 1,249	$ 39.50	$ 42.35	$ 47.77	$ 29.75
1,250- 2,499	39.50	46.24	41.96	26.96
2,500- 3,749	42.60	49.18	47.33	28.64
3,750- 4,999	46.77	55.08	50.16	32.77
5,000- 7,499	65.76	74.39	71.19	50.52
7,500- 9,999	101.32	98.63	120.51	89.70
10,000-12,499	160.97	165.42	174.95	143.37
12,500-14,499	239.97	238.27	260.12	219.04
15,000-17,499	337.08	332.07	354.38	318.49
17,500-19,999	462.98	477.76	503.54	409.53
20,000 and over	60[illegible].72	423.23	586.21	638.86

a. Includes all charges for drilling and equipping wells up to and including the "Christmas" trees but excludes exploration, development and production costs and expenditures for service wells.

b. No data reported.

Source: American Petroleum Institute, *Joint Association Survey on Drilling Costs*, December 1983.

CHART 3-3



WORLD NATURAL GAS PRODUCTION AND GROSS CONSUMPTION 1982

(QUADRILLIONS OF BTU)

REFERENCE: TABLE 3-27

TABLE 3-27
WORLD NATURAL GAS STATISTICS
1982

Country	Production	Imports	Exports	Gross Consumption	Residential Consumers (000)	Miles of Pipeline (000)
	(Trillions of Btu)					
United States	18,302	996	62	18,929	44,924[a]	979[a]
United Kingdom	1,406	392	–	1,798	15,469	142
USSR	14,409[b]	–	–	14,378[b]	55,228[b]	166[b]
Poland	158	183	–	341	6,499	16
Netherlands	2,401	113	1,306	1,208	4,550[a]	57[a]
Italy	507[a]	502[a]	–	967[a]	7,250[c]	42[c]
Federal Republic of Germany	550	1,218	79	1,689	8,251[a]	97
France	244	722	5	931	8,533	75
Belgium	1	318	10	299	3,563	20
Canada	2,611	0.17	784	1,786	2,590	85
Czechoslovakia	20	261	0.28	289	3,499	17
Others	1,547	790	958	1,372	8,869	46

a. 1981.
b. 1980.
c. 1979.
Source: United Nations, *Annual Bulletin of Gas Statistics for Europe*, 1982.

TABLE 3-28
WORLD WELL COMPLETIONS
1981

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	39,947	18,533	24,689	3,850	1,226	88,245	404,837,243
South America	2,360	90	520	438	703	4,111	21,040,480
Far East	2,608	310	264	474	92	4,066[b]	26,573,793
Western Europe	400	167	341	81	104	1,093	8,252,936
Middle East	335	17	63	212	62	771[c]	4,941,805
Africa	559	76	208	61	44	948	7,510,350
Oceania	38	56	100	0	6	200	1,503,470
World Total[a]	46,247	19,249	26,185	5,116	2,237	99,434[d]	474,660,077

a. No drilling data available for Eastern Europe.
b. Total does not add due to inclusion of 318 total wells from China.
c. Total does not add due to inclusion of 82 total wells from Syria.
d. Total does not add due to inclusion of total wells from China and Syria.
Source: *World Oil*, August 15, 1982.

WORLD WELL COMPLETIONS
1982

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	40,291	18,884	25,573	2,691	6,447	93,886	436,163,397
South America	3,166	94	638	177	199	4,274	24,001,612
Far East	2,550	294	270	1,005	146	5,128[b]	31,955,549
Western Europe	345	176	337	72	77	1,007	7,819,005
Middle East	365	35	104	231	31	850[b]	5,889,074
Africa	509	70	239	49	79	946	7,736,372
Oceania	110	75	146	1	6	338	2,169,827
World Total[a]	47,336	19,628	27,307	4,226	6,985	106,429[b]	515,734,836

a. No drilling data available for Eastern Europe, Iran and Iraq.
b. Sum of wells by category will not equal total due to unavailable breakdown for China and Syria.
Source: *World Oil*, August 15, 1983.

WORLD WELL COMPLETIONS
1983

Area	Oil	Gas	Dry	Service	Suspended	Total Wells	Total Footage
North America	35,996	12,415	19,958	1,574	4,577	74,520	329,698,538
South America	2,712	90	594	187	649	4,232	21,125,880
Far East	2,994	225	303	1,005	204	5,709[b]	35,339,436
Western Europe	308	194	300	52	69	923	7,561,222
Middle East	402	53	107	133	52	829[c]	6,013,465
Africa	382	24	150	51	22	849[d]	6,967,296
Oceania	84	46	153	0	4	288	2,044,670
World Total[a]	42,878	13,047	21,565	3,002	5,577	87,350	408,750,507

a. No drilling data available for Eastern Europe, USSR, Iran and Iraq.
b. Total does not add due to inclusion of 978 total wells from China.
c. Total does not add due to inclusion of 82 total wells from Syria.
d. Total does not add due to inclusion of 140 total wells from Algeria and 80 total wells from Libya.
Source: *World Oil*, August 15, 1984.

SECTION 4
UNDERGROUND GAS STORAGE

	1983	% Change 83/82
Number of Pools	419	+ 3.7
Est. Ultimate Capacity (Millions of cubic feet)	7,754,991	+ 0.4
Input to Storage (Millions of cubic feet)	1,644,316	−29.0
Output from Storage (Millions of cubic feet)	2,055,848	+ 2.1
Maximum Day Output (Millions of cubic feet)	53,566	+29.5

TABLE 4-1
NUMBER OF UNDERGROUND STORAGE POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1983

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)*
1960	217	20	2,854
1965	293	24	4,086
1966	303	25	4,421
1967	308	25	4,520
1968	315	26	4,783
1969	320	26	4,927
1970	325	26	5,178
1971	333	26	5,575
1972	348	26	6,040
1973	360	26	6,279
1974	367	26	6,360
1975	376	26	6,644
1976	386	26	6,927
1977	385	26	7,223
1978	388	26	7,330
1979	399	26	7,437
1980	401	26	7,488
1981	393	26	7,581
1982	404	26	7,728
1983	419	26	7,755

*At 14.73 psia and 60°F.
Source: A.G.A. *The Underground Storage of Gas in the United States and Canada*—1983 Update.

UNDERGROUND STORAGE

TABLE 4-2
NUMBER OF AQUIFER POOLS AND ULTIMATE CAPACITY IN THE UNITED STATES, 1960-1983[a]

Year	Number of Pools	Number of States	Est. Ultimate Capacity (bill. cu. ft.)[b]
1960	14	8	c
1965	37	9	643
1966	37	9	647
1967	37	9	672
1968	40	10	759
1969	43	10	818
1970	43	9	968
1971	44	8	1,056
1972	46	9	1,278
1973	49	10	1,399
1974	51	10	1,408
1975	52	10	1,459
1976	52	10	1,484
1977	52	10	1,578
1978	53	10	1,593
1979	54	10	1,601
1980	57	10	1,449
1981	56	10	1,423
1982	56	10	1,432
1983	56	10	1,421

a. These data are also in Table 4-1.
b. At 14.73 psia and 60°F.
c. Not available.
Source: Same as Table 4-1.

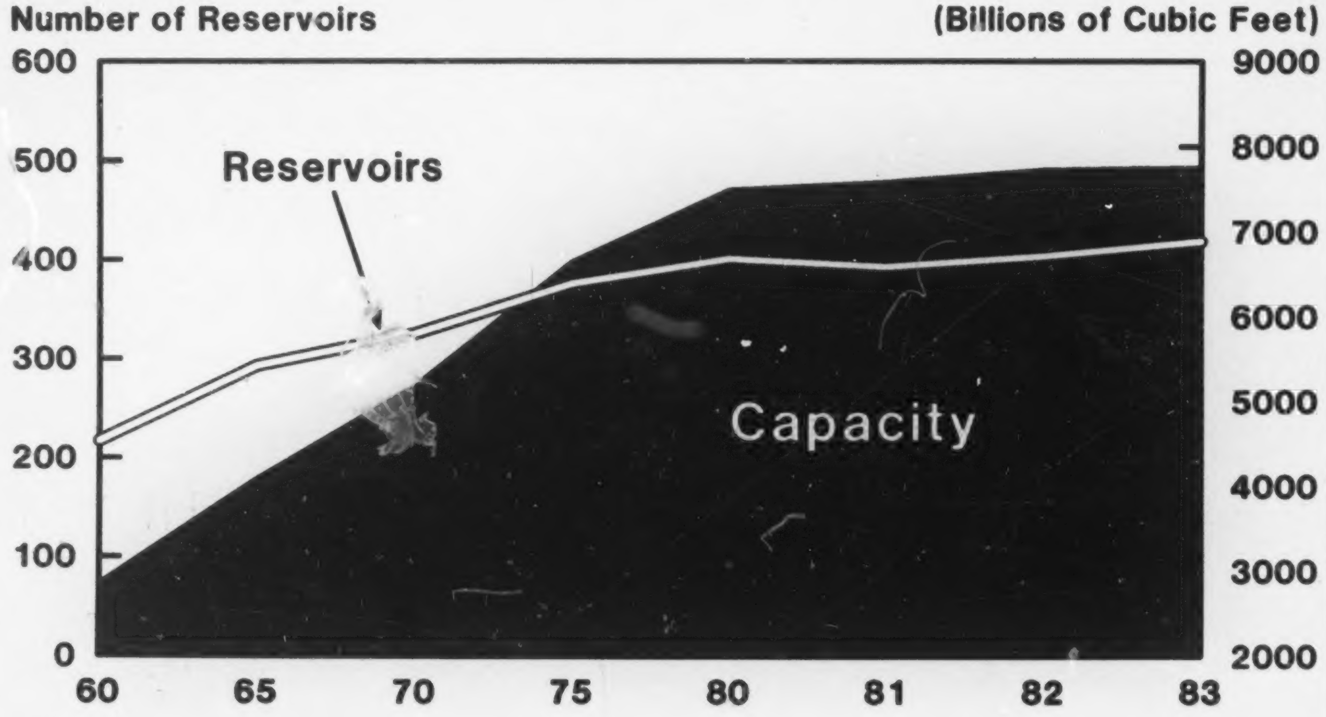
TABLE 4-3
LIQUEFIED NATURAL GAS STORAGE OPERATIONS IN THE UNITED STATES AS OF DECEMBER 31, 1983[a]

	Presently Operating	Proposed or Pending Operation
Complete Plants		
Storage Capacity—MMcf	62,728	8,735
Gross Liquefaction Capacity—MMcfday	320	41
Sendout Capacity—MMcfday	8,056	712
Number of Facilities	52	3
Satellite Plants		
Storage Capacity—MMcf	6,833	400
Sendout Capacity—MMcfday	871	60
Number of Facilities	45	1
Import Terminals[b]		
Storage Capacity—MMcf	5,250	20,775
Sendout Capacity—MMcfday	585	3,540
Number of Facilities	2	4

a. Not underground storage.
b. Of those presently operating, Algonquin terminal has been utilized for domestic storage since 1973.
Source: Institute of Gas Technology.

CHART 4-1

NUMBER AND CAPACITY OF EXISTING UNDERGROUND STORAGE RESERVOIRS



REFERENCE: TABLE 4-1

UNDERGROUND STORAGE

TABLE 4-4
INPUTS, OUTPUTS, AND GAS IN UNDERGROUND STORAGE, BY STATE, 1983

(Millions of cubic feet—14.73 psia at 60°F)

	Year Ending December 31, 1983					
Division and State	Input to Storage	Output from Storage	Native Gas	Stored Gas	Maximum Stored Gas	Maximum Day Output
United States	**1,644,316**	**2,055,848**	**1,090,062**	**5,113,862**	**5,856,729**	**53,566**
New England	**0**	**0**	**0**	**0**	**0**	**0**
Middle Atlantic	**311,107**	**369,656**	**43,583**	**716,325**	**828,393**	**9,089**
New Jersey	0	0	0	0	0	0
New York	45,598	54,081	15,096	128,175	147.043	870
Pennsylvania	265,509	315,575	28,487	588,150	681,350	8,219
East North Central	**497,482**	**675,082**	**368,248**	**1,820,135**	**2,099,976**	**14,011**
Illinois	123,580	168,115	11,523	798,446	871,177	4,194
Indiana	19,946	24,331	21,796	100,279	107,459	502
Michigan	225,174	326,487	249,982	495,286	643,287	6,439
Ohio	128,782	156,149	84,947	426,124	478,053	2,876
Wisconsin	0	0	0	0	0	0
West North Central	**120,077**	**145,528**	**47,765**	**472,465**	**519,554**	**2,196**
Iowa	60,599	74,272	0	230,754	258,470	907
Kansas	50,554	61,346	29,448	150,562	169,029	1,105
Minnesota	648	554	0	6,057	6,443	47
Missouri	4,407	4,407	0	29,286	29,298	0
Nebraska	3,869	4,949	18,317	55,806	56,314	137
North Dakota	0	0	0	0	0	0
South Dakota	0	0	0	0	0	0
South Atlantic	**112,823**	**141,048**	**65,755**	**432,860**	**480,887**	**3,264**
Delaware	0	0	0	0	0	0
District of Columbia	0	0	0	0	0	0
Florida	0	0	0	0	0	0
Georgia	0	0	0	0	0	0
Maryland	14,713	16,812	32,456	26,847	29,534	294
North Carolina	0	0	0	0	0	0
South Carolina	0	0	0	0	0	0
Virginia	0	0	0	0	0	0
West Virginia	98,110	124,236	33,299	406,013	451,353	2,970
East South Central	**86,322**	**111,648**	**108,036**	**160,909**	**206,943**	**5,267**
Alabama	0	0	0	0	0	0
Kentucky	41,996	59,710	80,713	101,299	128,922	3,917
Mississippi	44,326	51,938	27,323	59,610	78,021	1,350
Tennessee	0	0	0	0	0	0
West South Central	**339,672**	**467,121**	**196,207**	**879,631**	**1,052,733**	**10,774**
Arkansas	251	1,444	24,951	9,541	10,688	88
Louisiana	130,202	180,918	72,011	333,655	398,698	3,462
Oklahoma	77,933	111,212	25,096	280,730	331,705	2,191
Texas	131,286	173,547	74,149	255,705	311,642	5,033
Mountain	**74,670**	**55,078**	**107,375**	**344,153**	**365,575**	**4,710**
Arizona	0	0	0	0	0	0
Colorado	26,171	25,946	20,260	48,833	58,116	3,904
Idaho	0	0	0	0	0	0
Montana	33,262	13,125	55,214	186,076	192,430	303
Nevada	0	0	0	0	0	0
New Mexico	2,358	5,062	10,600	31,561	35,050	262
Utah	1,333	1,385	0	4,984	5,237	45
Wyoming	11,546	9,560	21,301	72,699	74,742	196
Pacific	**102,163**	**90,687**	**153,093**	**287,384**	**302,668**	**4,255**
Alaska	0	0	0	0	0	0
California	95,945	82,180	153,093	258,101	271,808	3,887
Hawaii	0	0	0	0	0	0
Oregon	0	0	0	0	0	0
Washington	6,218	8,507	0	29,283	30,860	368

Source: Same as Table 4-1.

TABLE 4-5
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1981-1983

Division and State	Number of Pools			Number of Active Wells		
	1981	1982	1983	1981	1982	1983
(1) **United States**	**393**	**404**	**419**	**17,989**	**18,170**	**18,318**
(2) **New England**	**0**	**0**	**0**	**0**	**0**	**0**
(3) **Middle Atlantic**	**83**	**83**	**92**	**2,994**	**2,993**	**2,987**
(4) New Jersey	0	0	0	0	0	0
(5) New York	21	21	22	820	831	837
(6) Pennsylvania	62	62	70	2,174	2,162	2,150
(7) **East North Central**	**134**	**142**	**143**	**8,933**	**8,980**	**8,977**
(8) Illinois	34	35	35	1,752	1,758	1,744
(9) Indiana	30	30	31	958	965	967
(10) Michigan	47	54	54	2,957	2,978	2,980
(11) Ohio	23	23	23	3,266	3,279	3,286
(12) Wisconsin	0	0	0	0	0	0
(13) **West North Central**	**30**	**31**	**31**	**1,364**	**1,419**	**1,414**
(14) Iowa	9	9	9	424	426	426
(15) Kansas	17	18	18	745	798	791
(16) Minnesota	1	1	1	61	61	61
(17) Missouri	1	1	1	82	82	82
(18) Nebraska	2	2	2	52	52	54
(19) North Dakota	0	0	0	0	0	0
(20) South Dakota	0	0	0	0	0	0
(21) **South Atlantic**	**38**	**38**	**38**	**1,614**	**1,642**	**1,647**
(22) Delaware	0	0	0	0	0	0
(23) District of Columbia	0	0	0	0	0	0
(24) Florida	0	0	0	0	0	0
(25) Georgia	0	0	0	0	0	0
(26) Maryland	1	1	1	82	82	82
(27) North Carolina	0	0	0	0	0	0
(28) South Carolina	0	0	0	0	0	0
(29) Virginia	0	0	0	0	0	0
(30) West Virginia	37	37	37	1,532	1,560	1,565
(31) **East South Central**	**26**	**26**	**28**	**1,290**	**1,291**	**1,306**
(32) Alabama	0	0	0	0	0	0
(33) Kentucky	22	22	24	1,189	1,190	1,205
(34) Mississippi	4	4	4	101	101	101
(35) Tennessee	0	0	0	0	0	0
(36) **West South Central**	**46**	**47**	**49**	**921**	**943**	**1,012**
(37) Arkansas	5	5	5	23	23	23
(38) Louisiana	8	8	8	331	341	346
(39) Oklahoma	14	14	14	300	300	300
(40) Texas	19	20	22	267	279	343
(41) **Mountain**	**25**	**26**	**27**	**376**	**404**	**474**
(42) Arizona	0	0	0	0	0	0
(43) Colorado	8	8	9	174	174	174
(44) Idaho	0	0	0	0	0	0
(45) Montana	5	5	5	139	139	206
(46) Nevada	0	0	0	0	0	0
(47) New Mexico	2	3	3	15	42	44
(48) Utah	2	2	2	15	17	17
(49) Wyoming	8	8	8	33	32	33
(50) **Pacific**	**11**	**11**	**11**	**497**	**498**	**501**
(51) Alaska	0	0	0	0	0	0
(52) California	9	9	9	420	421	424
(53) Hawaii	0	0	0	0	0	0
(54) Oregon	0	0	0	0	0	0
(55) Washington	2	2	2	77	77	77

Source: Same as Table 4-1.

TABLE 4-5 (Continued)
NUMBER OF POOLS, WELLS, COMPRESSOR STATIONS, AND HORSEPOWER IN UNDERGROUND STORAGE FIELDS, BY STATE, 1981-1983

Number of Compressor Stations			Total HP Installed in Compressor Stations			
1981	1982	1983	1981	1982	1983	
294	**301**	**292**	**1,614,998**	**1,657,669**	**1,707,697**	(1)
0	**0**	**0**	**0**	**0**	**0**	(2)
60	**62**	**52**	**248,645**	**251,800**	**251,830**	(3)
0	0	0	0	0	0	(4)
13	14	14	26,850	38,550	38,550	(5)
47	48	38	221,795	213,250	213,280	(6)
92	**93**	**92**	**638,276**	**644,711**	**669,751**	(7)
29	29	27	217,070	216,830	216,520	(8)
17	17	17	19,551	19,476	19,476	(9)
28	29	29	322,020	328,770	330,470	(10)
18	18	19	79,635	79,635	103,285	(11)
0	0	0	0	0	0	(12)
19	**20**	**20**	**79,295**	**94,295**	**94,295**	(13)
4	4	4	37,860	37,860	37,860	(14)
11	12	12	19,435	34,435	34,435	(15)
1	1	1	2,400	2,400	2,400	(16)
1	1	1	8,850	8,850	8,850	(17)
2	2	2	10,750	10,750	10,750	(18)
0	0	0	0	0	0	(19)
0	0	0	0	0	0	(20)
20	**20**	**20**	**91,310**	**91,310**	**89,610**	(21)
0	0	0	0	0	0	(22)
0	0	0	0	0	0	(23)
0	0	0	0	0	0	(24)
0	0	0	0	0	0	(25)
1	1	1	11,000	11,000	11,000	(26)
0	0	0	0	0	0	(27)
0	0	0	0	0	0	(28)
0	0	0	0	0	0	(29)
19	19	19	80,310	80,310	78,610	(30)
20	**20**	**21**	**74,260**	**73,960**	**74,200**	(31)
0	0	0	0	0	0	(32)
17	17	18	38,460	38,460	38,700	(33)
3	3	3	35,800	35,500	35,500	(34)
0	0	0	0	0	0	(35)
46	**48**	**49**	**288,124**	**296,625**	**320,702**	(36)
6	6	5	1,470	1,470	1,870	(37)
8	8	8	137,040	137,040	137,040	(38)
11	11	11	80,569	80,450	80,569	(39)
21	23	25	69,045	77,665	101,223	(40)
26	**27**	**27**	**67,858**	**77,738**	**80,079**	(41)
0	0	0	0	0	0	(42)
7	7	7	30,950	30,800	30,800	(43)
0	0	0	0	0	0	(44)
6	6	6	23,440	23,440	24,235	(45)
0	0	0	0	0	0	(46)
4	5	5	3,350	11,180	12,705	(47)
2	2	2	1,200	1,200	1,200	(48)
7	7	7	8,918	11,118	11,139	(49)
11	**11**	**11**	**127,230**	**127,230**	**127,230**	(50)
0	0	0	0	0	0	(51)
10	10	10	115,430	115,430	115,430	(52)
0	0	0	0	0	0	(53)
0	0	0	0	0	0	(54)
1	1	1	11,800	11,800	11,800	(55)

TABLE 4-6
ULTIMATE CAPACITY OF EXISTING RESERVOIRS, BY STATE, 1983*

(Millions of cubic feet—14.73 psia at 60°F)

Division and State	Cushion Gas Native	Cushion Gas Injected	Cushion Gas Total	Working Gas	Ultimate Reservoir Capacity
United States	**1,076,748**	**2,495,709**	**3,572,457**	**2,631,466**	**7,754,991**
New England	**0**	**0**	**0**	**0**	**0**
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	0	0	0	0	0
New Hampshire	0	0	0	0	0
Rhode Island	0	0	0	0	0
Vermont	0	0	0	0	0
Middle Atlantic	**43,583**	**392,517**	**436,100**	**323,807**	**919,074**
New Jersey	0	0	0	0	0
New York	15,096	78,409	93,505	49,766	1[illegible]2,444
Pennsylvania	28,487	314,108	342,595	274,041	736,630
East North Central	**356,713**	**1,057,937**	**1,414,650**	**773,732**	**2,713,312**
Illinois	11,384	548,614	559,998	249,971	918,266
Indiana	21,796	61,818	83,614	38,460	190,577
Michigan	238,586	154,911	393,497	351,771	993,842
Ohio	84,947	292,594	377,541	133,530	610,627
Wisconsin	0	0	0	0	0
West North Central	**47,765**	**237,443**	**285,208**	**235,021**	**730,085**
Iowa	0	117,751	117,751	113,002	354,500
Kansas	29,448	96,725	126,173	53,837	222,147
Minnesota	0	4,303	4,303	1,754	20,000
Missouri	0	11,759	11,759	17,527	45,000
Nebraska	18,317	6,905	25,222	48,901	88,438
North Dakota	0	0	0	0	0
South Dakota	0	0	0	0	0
South Atlantic	**65,755**	**261,639**	**327,394**	**171,223**	**574,418**
Delaware	0	0	0	0	0
District of Columbia	0	0	0	0	0
Florida	0	0	0	0	0
Georgia	0	0	0	0	0
Maryland	32,456	11,946	44,402	14,902	64,770
North Carolina	0	0	0	0	0
South Carolina	0	0	0	0	0
Virginia	0	0	0	0	0
West Virginia	33,299	249,693	282,992	156,321	509,648
East South Central	**107,315**	**46,555**	**153,870**	**115,075**	**321,235**
Alabama	0	0	0	0	0
Kentucky	79,992	27,788	107,780	74,232	212,853
Mississippi	27,323	18,767	46,090	40,843	108,382
Tennessee	0	0	0	0	0
West South Central	**195,220**	**350,093**	**545,313**	**530,525**	**1,424,074**
Arkansas	24,951	0	24,951	9,541	40,951
Louisiana	72,011	188,953	260,964	144,702	560,817
Oklahoma	25,096	130,550	155,646	150,180	401,437
Texas	73,162	30,590	103,752	226,102	420,869
Mountain	**107,375**	**56,707**	**164,082**	**287,446**	**543,939**
Arizona	0	0	0	0	0
Colorado	20,260	18,676	38,936	30,156	84,853
Idaho	0	0	0	0	0
Montana	55,214	15,200	70,414	170,876	258,457
Nevada	0	0	0	0	0
New Mexico	10,600	12,859	23,459	18,702	91,316
Utah	0	2,807	2,807	2,177	5,237
Wyoming	21,301	7,165	28,466	65,535	104,076
Pacific	**153,022**	**92,818**	**245,840**	**194,637**	**528,854**
Alaska	0	0	0	0	0
California	153,022	71,518	224,540	186,654	497,994
Hawaii	0	0	0	0	0
Oregon	0	0	0	0	0
Washington	0	21,300	21,300	7,983	30,860

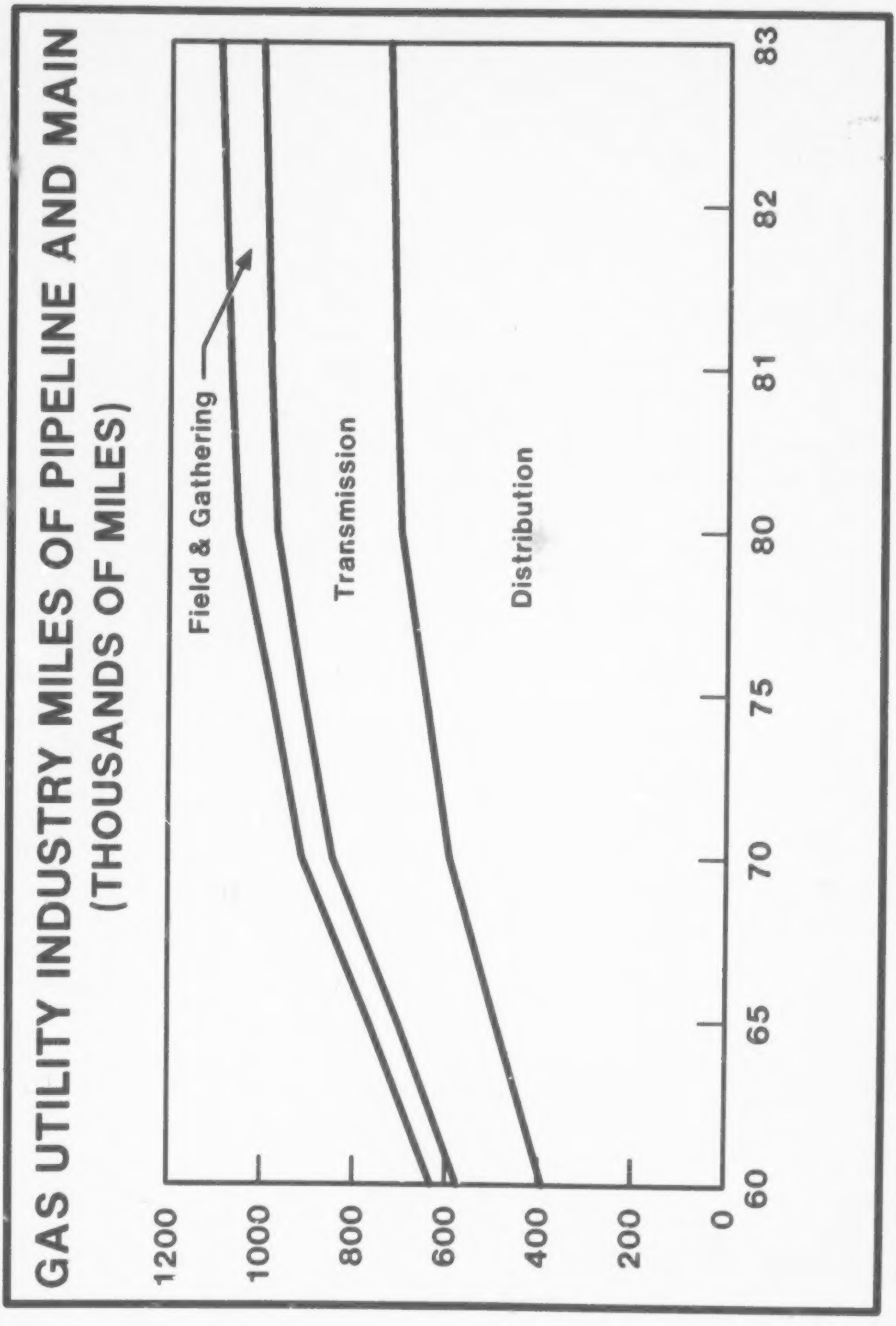
*In some states or regions, the difference between the sum of the components and Ultimate Resevoir Capacity represents presently unused capacity.

Source: Same as Table 4-1.

SECTION 5
DISTRIBUTION AND TRANSMISSION

	1983	% Change 83/82
Miles of Pipeline		
(Thousands)		
Total	1,095.1	+ 1.1
Field & Gathering	91.9	+ 1.5
Transmission	273.5	+ 0.6
Distribution	729.7	+ 1.2
Miles Installed		
(Thousands)	15.2	– 14.5

CHART 5-1



GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN
(THOUSANDS OF MILES)

REFERENCE: TABLE 5-1

DISTRIBUTION AND TRANSMISSION

TABLE 5-1
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY TYPE, 1960-1983[a]

(Thousands)

Year	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
1960	630.9	55.8	183.7	391.4
1961	659.0	56.7	191.9	410.4
1962	683.2	58.7	196.4	428.1
1963	709.9	60.7	200.9	448.3
1964	736.2	61.0	205.4	469.8
1965	767.5	61.7	211.3	494.5
1966	799.6	63.0	217.0	519.6
1967	828.3	63.7	225.4	539.2
1968	861.6	64.4	234.5	562.7
1969	891.6	64.9	248.1	578.6
1970	913.3	66.3	252.2	594.8
1971	931.4	66.2	254.8	610.4
1972	948.1	66.9	258.1	623.1
1973	962.9	65.9	263.1	633.8
1974	974.1	66.4	262.2	645.6
1975	979.3	68.5	262.6	648.2
1976	987.7	70.3	258.2	659.1
1977	998.9	71.5	260.5	666.9
1978	1013.0	74.9	260.6	677.5
1979	1029.8	77.8	263.5	688.5
1980	1051.8	83.5	266.5	701.8
1981	1069.8	86.2	269.5	714.1
1982[R]	1083.4	90.5	271.7	721.2
1983	1095.1	91.9	273.5	729.7
Steel	926.6	90.9	268.3	567.4
Plastic[c]	108.4	0.5	4.5	103.4
Other	60.1	0.5	0.7	58.9

a. Includes data for Alaska subsequent to 1960; excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of each year.

b. Includes 5.0 thousand miles of Underground Storage pipe in 1975, 5.3 thousand miles in 1976, 5.2 thousand miles in 1977, 6.0 thousand miles in 1978, 5.7 thousand miles in 1979, 6.2 thousand miles in 1980, 7.8 thousand miles in 1981, 5.5 thousand miles in 1982, 5.9 thousand miles in 1983, some of which was formerly included in Field and Gathering pipe.

c. Includes fiberglass.

R–Revised.

TABLE 5-2

GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN, BY STATE, 1960-1983[a]

Division and State	1960	1965	1970	1975	1980	1982[R]	1983
United States	**630,950**	**767,520**	**913,267**	**979,263**	**1,051,774**	**1,083,466**	**1,095,118**
New England	**19,140**	**22,090**	**25,686**	**26,580**	**27,794**	**27,650**	**27,844**
Connecticut	4,300	4,960	5,728	5,991	6,710	6,275	6,371
Maine	390	390	705	461	395	408	406
Massachusetts	11,910	13,740	15,609	16,452	16,719	16,990	17,053
New Hampshire	630	800	1,041	1,093	1,163	1,207	1,220
Rhode Island	1,720	1,990	2,299	2,248	2,403	2,399	2,414
Vermont	190	210	304	335	404	371	380
Middle Atlantic	**92,600**	**102,580**	**111,644**	**113,993**	**116,439**	**118,240**	**120,262**
New Jersey	15,140	18,320	21,052	22,077	22,838	23,406	24,118
New York	33,020	36,580	39,955	40,535	41,394	41,948	42,110
Pennsylvania	44,440	47,680	50,637	51,381	52,207	52,886	54,034
East North Central	**113,420**	**147,640**	**178,268**	**190,172**	**200,361**	**203,636**	**204,074**
Illinois	27,770	38,750	46,683	50,252	53,375	54,017	54,120
Indiana	14,800	20,240	25,264	27,267	28,227	29,246	29,696
Michigan	21,860	30,370	37,699	40,203	44,100	44,766	44,270
Ohio	40,150	44,690	49,393	51,505	52,667	53,283	53,491
Wisconsin	8,840	13,590	19,229	20,945	21,992	22,324	22,497
West North Central	**67,640**	**82,250**	**99,536**	**106,134**	**112,901**	**114,909**	**115,746**
Iowa	9,970	13,630	16,654	17,273	17,892	18,163	18,224
Kansas	25,860	28,780	32,802	34,280	36,893	37,718	37,900
Minnesota	8,090	10,680	14,162	15,264	16,720	17,532	17,813
Missouri	11,950	15,150	18,654	20,897	21,854	21,523	21,657
Nebraska	8,910	10,300	12,627	13,333	14,079	14,195	14,304
North Dakota	1,100	1,560	2,332	2,533	2,854	3,066	3,121
South Dakota	1,760	2,150	2,305	2,554	2,609	2,712	2,727
South Atlantic	**59,100**	**74,180**	**92,738**	**100,496**	**103,960**	**107,554**	**108,711**
Delaware	830	1,160	1,270	1,322	1,336	1,456	1,466
District of Columbia	1,160	1,150	1,164	1,163	1,157	1,162	1,162
Florida	6,400	8,330	11,435	13,100	12,902	13,248	13,314
Georgia	10,580	14,600	19,549	22,679	24,676	25,499	25,816
Maryland	5,400	6,710	7,986	8,534	8,704	8,801	8,833
North Carolina	4,830	7,080	10,605	11,100	11,842	12,631	12,815
South Carolina	3,320	6,090	8,514	9,667	9,825	10,731	10,783
Virginia	6,490	8,190	10,451	10,944	11,226	11,490	11,895
West Virginia	20,090	20,870	21,764	21,987	22,292	22,536	22,627
East South Central	**44,930**	**54,390**	**65,441**	**70,345**	**73,807**	**76,270**	**76,770**
Alabama	11,380	13,860	16,607	17,832	19,556	19,958	20,197
Kentucky	13,130	15,470	18,295	19,816	19,981	20,816	20,893
Mississippi	11,420	13,460	16,403	17,056	17,911	18,311	18,422
Tennessee	9,000	11,600	14,136	15,641	16,359	17,185	17,258
West South Central	**127,120**	**150,260**	**182,752**	**194,820**	**216,394**	**226,755**	**230,829**
Arkansas	10,380	13,060	16,429	17,474	18,312	18,401	18,493
Louisiana	24,970	30,310	36,921	38,855	41,689	43,800	44,233
Oklahoma	19,590	23,850	28,532	32,798	37,132	40,046	41,079
Texas	72,180	83,040	100,870	105,693	119,261	124,508	127,024
Mountain	**44,940**	**59,000**	**71,848**	**83,184**	**97,391**	**102,931**	**104,459**
Arizona	9,630	11,120	13,379	15,197	16,669	16,988	16,988
Colorado	8,080	12,240	15,870	19,192	23,108	24,671	25,553
Idaho	1,490	2,770	3,226	3,785	4,177	4,464	4,494
Montana	5,120	5,970	6,324	7,435	8,822	8,699	8,895
Nevada	660	1,940	2,470	2,945	3,554	3,794	3,777
New Mexico	13,160	15,410	19,050	21,657	24,581	26,069	26,162
Utah	3,400	4,940	5,609	6,577	7,846	8,596	8,757
Wyoming	3,400	4,610	5,920	6,396	8,634	9,650	9,833
Pacific	**62,060**	**75,130**	**85,354**	**93,539**	**102,727**	**105,521**	**106,423**
Alaska	b	250	667	868	1,186	1,213	1,224
California	52,280	60,650	66,328	72,493	79,625	81,545	82,315
Hawaii	440	490	530	581	587	588	590
Oregon	3,940	6,360	8,014	8,838	9,709	10,139	10,201
Washington	5,400	7,380	9,815	10,759	11,620	12,036	12,093

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a. Includes field, gathering, underground storage, transmission and distribution main but excludes service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.

b. Not available.

R—Revised.

TABLE 5-3
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN BY STATE AND TYPE OF MAIN, 1983[a]

Division and State	Total	Field and Gathering	Transmission Pipeline[b]	Distribution Main
United States	**1,095,118**	**91,884**	**273,506**	**729,728**
New England	**27,844**	**0**	**1,660**	**26,184**
Connecticut	6,371	0	512	5,859
Maine	406	0	77	329
Massachusetts	17,053	0	829	16,224
New Hampshire	1,220	0	134	1,086
Rhode Island	2,414	0	53	2,361
Vermont	380	0	55	325
Middle Atlantic	**120,262**	7,213	**17,494**	**95,555**
New Jersey	24,118	0	1,441	22,677
New York	42,110	540	3,849	37,721
Pennsylvania	54,034	6,673	12,204	35,157
East North Central	**204,074**	4,317	**35,910**	**163,847**
Illinois	54,120	94	10,029	43,997
Indiana	29,696	247	5,668	23,781
Michigan	44,270	116	7,004	37,150
Ohio	53,491	3,860	10,006	39,625
Wisconsin	22,497	0	3,203	19,294
West North Central	**115,746**	**9,338**	**40,042**	**66,366**
Iowa	18,224	87	6,001	12,136
Kansas	37,900	8,974	15,905	13,021
Minnesota	17,813	0	4,141	13,672
Missouri	21,657	25	4,345	17,287
Nebraska	14,304	46	7,546	6,712
North Dakota	3,121	193	1,145	1,783
South Dakota	2,727	13	959	1,755
South Atlantic	**108,711**	**9,398**	**22,003**	**77,310**
Delaware	1,466	0	343	1,123
District of Columbia	1,162	0	23	1,139
Florida	13,314	0	2,951	10,363
Georgia	25,816	0	5,056	20,760
Maryland	8,833	24	827	7,982
North Carolina	12,815	0	2,342	10,473
South Carolina	10,783	0	2,334	8,449
Virginia	11,895	113	2,498	9,284
West Virginia	22,627	9,261	5,629	7,737
East South Central	**76,770**	**4,278**	**27,259**	**45,233**
Alabama	20,197	7	5,266	14,924
Kentucky	20,893	4,009	7,119	9,765
Mississippi	18,422	262	9,584	8,576
Tennessee	17,258	0	5,290	11,968
West South Central	**230,829**	**35,044**	**88,199**	**107,586**
Arkansas	18,493	1,185	6,630	10,678
Louisiana	44,233	2,980	24,336	16,917
Oklahoma	41,079	12,163	12,511	16,405
Texas	127,024	18,716	44,722	63,586
Mountain	**104,459**	**21,319**	**29,371**	**53,769**
Arizona	16,988	2	5,099	11,887
Colorado	25,553	4,000	6,923	14,630
Idaho	4,494	0	1,524	2,970
Montana	8,895	2,288	3,320	3,287
Nevada	3,777	6	1,134	2,637
New Mexico	26,162	10,782	6,811	8,569
Utah	8,757	940	983	6,834
Wyoming	9,833	3,301	3,577	2,955
Pacific	**106,423**	**977**	**11,568**	**93,878**
Alaska	1,224	7	218	999
California	82,315	950	7,967	73,398
Hawaii	590	0	0	590
Oregon	10,201	20	1,398	8,783
Washington	12,093	0	1,985	10,108

a. Excludes 415,385 miles of service pipe. Data not adjusted to common diameter equivalent. Mileage shown as of end of year.
b. Includes 5,925 miles of underground storage pipe.

TABLE 5-4
GAS UTILITY INDUSTRY MILES OF PIPELINE AND MAIN INSTALLED DURING 1983, BY STATE AND BY TYPE OF PIPE[a]

		Field and Gathering	Transmission Pipeline	Distribution Main			
Division and State	Total[d]	Steel	Steel[b]	Total	Steel	Plastic[c]	Other
United States	**15,228**	**1,388**	**2,227**	**11,613**	**4,094**	**7,382**	**137**
New England	**310**	**0**	**4**	**306**	**126**	**169**	**11**
Connecticut	119	0	0	119	52	56	11
Maine	3	0	0	3	1	2	0
Massachusetts	138	0	1	137	46	91	0
New Hampshire	20	0	3	17	14	3	0
Rhode Island	21	0	0	21	4	17	0
Vermont	9	0	0	9	9	0	0
Middle Atlantic	**1,999**	**57**	**283**	**1,659**	**732**	**888**	**39**
New Jersey	851	0	41	810	483	293	34
New York	473	3	84	386	93	293	0
Pennsylvania	675	54	158	463	156	302	5
East North Central	**2,371**	**26**	**189**	**2,156**	**1,080**	**1,048**	**28**
Illinois	872	1	13	858	718	140	0
Indiana	526	3	16	507	88	397	22
Michigan	299	4	102	193	8	179	6
Ohio	389	18	58	313	190	123	0
Wisconsin	285	0	0	285	76	209	0
West North Central	**1,153**	**36**	**139**	**978**	**277**	**700**	**1**
Iowa	179	0	5	174	38	136	0
Kansas	259	23	56	180	81	99	0
Minnesota	278	0	47	231	23	207	1
Missouri	195	0	25	170	29	141	0
Nebraska	146	0	5	141	95	46	0
North Dakota	76	13	0	63	5	58	0
South Dakota	20	0	1	19	6	13	0
South Atlantic	**1,712**	**33**	**427**	**1,252**	**518**	**719**	**15**
Delaware	15	0	1	14	4	10	0
District of Columbia	4	0	0	4	1	3	0
Florida	127	0	5	122	51	71	0
Georgia	632	0	55	577	300	277	0
Maryland	55	0	1	54	26	27	1
North Carolina	186	0	20	166	54	112	0
South Carolina	157	0	6	151	28	123	0
Virginia	157	13	28	116	51	51	14
West Virginia	379	20	311	48	3	45	0
East South Central	**656**	**78**	**148**	**430**	**165**	**263**	**2**
Alabama	162	0	34	128	35	93	0
Kentucky	233	78	45	110	68	42	0
Mississippi	105	0	42	63	15	48	0
Tennessee	156	0	27	129	47	80	2
West South Central	**3,161**	**558**	**706**	**1,897**	**356**	**1,533**	**8**
Arkansas	130	69	4	57	3	54	0
Louisiana	605	74	245	286	201	85	0
Oklahoma	731	287	41	403	1	402	0
Texas	1,695	128	416	1,151	151	992	8
Mountain	**2,221**	**577**	**281**	**1,363**	**491**	**839**	**33**
Arizona	116	0	0	116	18	98	0
Colorado	963	230	68	665	210	422	33
Idaho	33	0	0	33	2	31	0
Montana	202	44	104	54	3	51	0
Nevada	241	0	0	241	186	55	0
New Mexico	244	116	70	58	36	22	0
Utah	219	50	21	148	26	122	0
Wyoming	203	137	18	48	10	38	0
Pacific	**1,645**	**23**	**50**	**1,572**	**349**	**1,223**	**0**
Alaska	11	0	7	4	0	4	0
California	1,356	22	31	1,303	200	1,103	0
Hawaii	7	0	0	7	0	7	0
Oregon	132	1	0	131	117	14	0
Washington	139	0	12	127	32	95	0

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a. Excludes service pipe. Data not adjusted to common diameter equivalent.
b. Includes 52 miles of underground storage pipe.
c. Includes fiberglass.
d. Does not include 57 miles of plastic and other pipe classified as field and gathering and transmission pipe.

TABLE 5-5

GAS UTILITY INDUSTRY REQUIREMENTS OF STEEL PIPE FOR NEW CONSTRUCTION AND MAINTENANCE AND REPAIR BY SIZE OF PIPE, 1983

(Miles)

Size of Pipe	Total	New Construction	Maintenance Repair
Normal Pipe Size—Inches			
3/4 and less	1,725.8	1,540.2	185.6
1	545.2	417.2	128.0
1 1/4	461.5	372.9	88.6
1 1/2	216.3	206.6	9.6
Outside Diameter—Inches			
2 3/8	2,216.3	1,592.8	623.5
3 1/2	508.1	481.7	26.4
4 1/2	1,616.6	1,398.5	218.1
6 5/8	1,319.9	1,114.3	205.6
8 3/4	652.0	567.1	84.9
10 3/4	99.5	84.9	14.6
12 3/4	399.8	324.5	75.3
14	107.2	79.5	27.7
16	513.7	487.2	26.5
18	17.5	13.1	4.4
20	110.6	95.7	14.9
22	0.8	0.0	0.8
24	47.1	45.3	1.8
26	10.2	7.7	2.5
30	19.5	19.4	0.1
34	0.0	0.0	0.0
36	1.2	1.2	0.0
42	46.4	46.4	0.0
Other Sizes	13.7	13.7	0.0
Total	**10,648.8**	**8,909.9**	**1,738.9**

TABLE 5-6

GAS UTILITY INDUSTRY INSTALLED COMPRESSOR HORSEPOWER, 1960-1983

(Thousands)

Year	Total	Transmission
1960	7,843	6,359
1961	8,169	6,696
1962	8,609	7,064
1963	8,818	7,261
1964	9,309	7,546
1965	9,708	7,736
1966	10,242	8,182
1967	10,746	8,596
1968	11,438	9,146
1969	12,742	9,375
1970	13,150	9,692
1971	14,142	10,763
1972	14,506	10,976
1973	14,858	11,272
1974	15,181	11,883*
1975	15,413	12,069
1976	15,472	12,046
1977	15,553	12,105
1978	15,824	12,255
1979	16,030	12,437
1980[R]	16,375	13,091
1981[R]	16,601	13,270
1982[R]	16,965	13,441
1983	16,900	13,499

*Not comparable to previous years due to reclassification.
R—Revised.

TABLE 5-7
SELECTED STATISTICS FOR MAJOR TRANSMISSION COMPANIES, 1983

Name of Transmission System	No. of Transmissions Stations	Total Miles of Transmission Pipeline	Peak Day Sendout (MMCF)	Operating Revenues ($000,000)
Algonquin Gas Transmission Co.	3	930	822	$ 750.9
ANR Pipeline Co.	37	7,720	3,774	2,640.8
Colorado Interstate Gas Co.	17	2,731	1,514	1,034.1
Columbia Gas Transmission Co.	115	10,512	7,337	3,860.2
Columbia Gulf Transmission Co.	13	4,180	1,408	209.5
Consolidated Gas Supply Corp.	41	3,605	4,575	2,375.0
East Tennessee Natural Gas Co.	10	1,012	318	317.5
El Paso Natural Gas Co.	53	9,330	3,249	3,911.3
Florida Gas Transmission Co.	20	4,322	677	700.7
Internorth, Inc.	63	18,583	3,445	2,784.7
Midwestern Gas Transmission Co.	14	903	1,530	780.3
Mississippi River Transmisssion Co.	15	1,967	871	717.8
Natural Gas Pipeline Co. of America	78	8,294	5,068	3,106.0
Northwest Central Pipeline Co.	41	5,844	2,114	1,040.5
Pacific Gas Transmission Co.	12	799	1,035	1,229.4
Panhandle Eastern Pipeline Co.	70	6,814	2,353	2,292.8
South Georgia Natural Gas Co.	2	767	105	99.0
Southern Natural Gas Co.	47	7,520	2,637	2,040.3
Tenneco, Inc.	63	13,921	4,267	3,645.8
Texas Eastern Transmission Co.	75	9,505	4,349	3,040.4
Texas Gas Transmission Corp.	24	5,669	2,970	2,047.4
Transcontinental Gas Pipeline Corp.	38	9,974	8,440	3,616.1
Transwestern Pipeline Co.	219	4,395	869	1,136.4
Trunkline Gas Co.	21	3,932	1,636	1,466.7
United Gas Pipeline Co.	32	7,336	4,278	2,645.3

Source: Federal Energy Regulatory Commission, FERC Form No. 2: Annual Report of Natural Gas Companies (Class A and Class B), 1983.

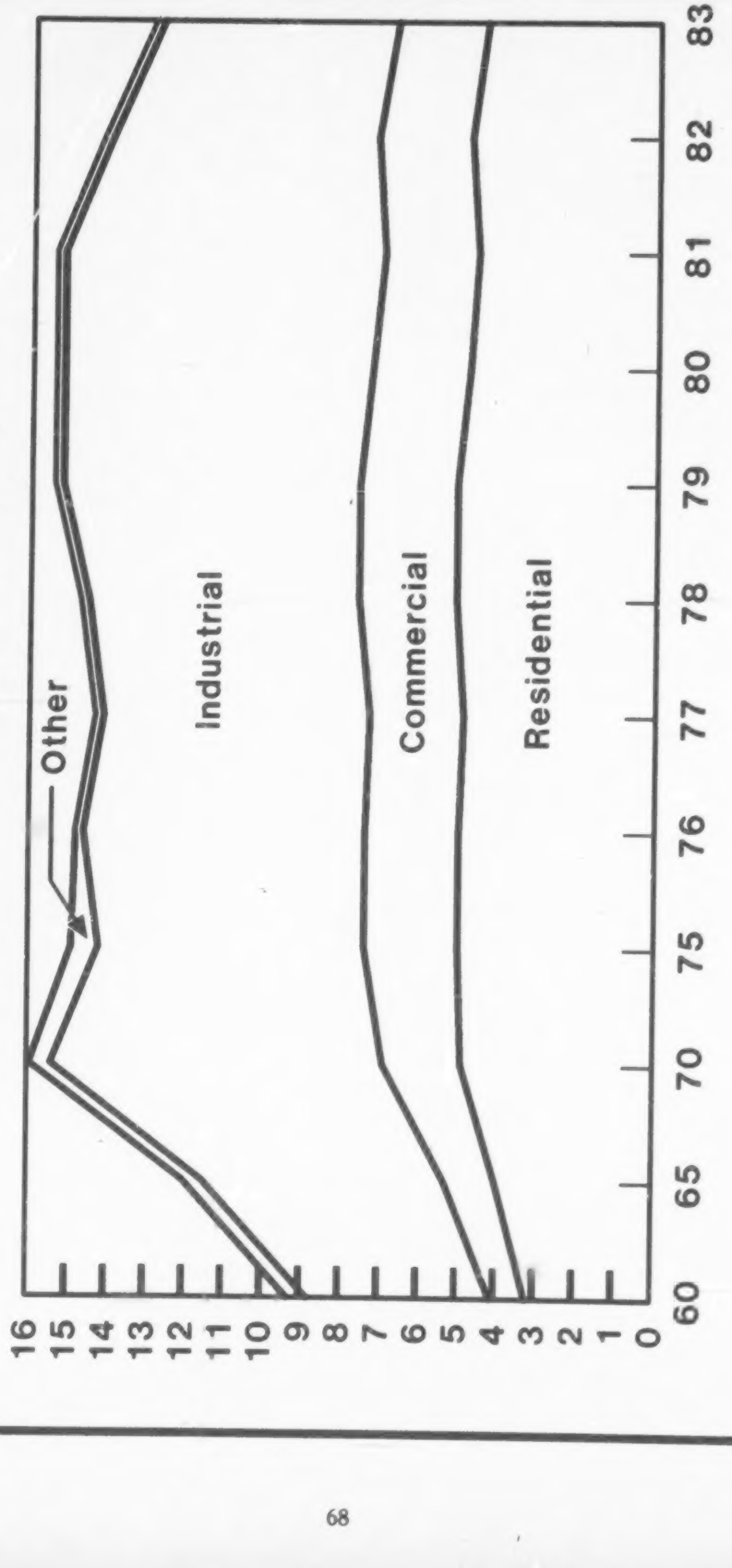
SECTION 6
SALES-QUANTITIES

	1983	% Change 83/82
Gas Utility Industry		
(Trillions of Btu)		
Total	12,859.0	– 9.3
Residential	4,450.2	– 6.7
Commercial	2,298.4	– 7.0
Industrial	5,970.0	–12.1
Industrial Only	4,364.5	–10.2
Electric Generation	1,605.5	–17.0
Other	140.4	– 4.7
Resale	12,536.6	–13.8

Note: Totals in this section may not add due to independent rounding.

CHART 6-1

GAS UTILITY INDUSTRY SALES BY CLASS OF SERVICE (QUADRILLIONS OF BTU)



REFERENCE: TABLE 6-1

SALES—QUANTITIES

TABLE 6-1
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE
1960-1983[a]

(Trillions of Btu)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	9,287.7	3,188.1	919.8	4,709.4	470.4
1961	9,589.0	3,321.0	988.1	4,785.6	494.3
1962	10,234.8	3,536.9	1,092.9	5,100.1	504.9
1963	10,766.3	3,668.0	1,136.6	5,438.1	523.6
1964	11,591.2	3,869.7	1,273.5	5,912.0	536.0
1965	11,980.3	3,999.0	1,344.8	6,146.5	490.0
1966	12,859.1	4,175.4	1,462.8	6,653.3	567.6
1967	13,488.3	4,365.3	1,577.6	7,014.3	531.1
1968	14,472.4	4,552.7	1,704.9	7,595.1	619.7
1969	15,391.6	4,820.4	1,878.1	8,135.8	557.3
1970	16,043.5	4,923.7	2,006.6	8,439.2	674.0
1971	16,685.7	5,040.1	2,155.5	8,645.5	844.7
1972	17,082.1	5,141.8	2,275.7	8,775.7	888.0
1973	16,479.9	4,993.6	2,280.8	8,370.8	834.7
1974	16,000.3	4,864.8	2,293.4	8,153.2	689.0
1975	14,862.9	4,991.0	2,386.8	6,837.1	648.0
1976	14,813.5	5,014.2	2,422.6	7,192.0	184.6
1977	14,340.9	4,946.3	2,409.4	6,796.4	188.9
1978	14,748.4	5,106.7	2,499.5	6,931.5	210.7
1979	15,440.3	5,083.1	2,485.8	7,641.4	230.0
1980[R]	15,413.2	4,826.1	2,453.3	7,956.6	177.2
1981	15,374.8	4,609.7	2,375.4	8,239.3	150.4
1982[R]	14,182.7	4,769.8	2,471.3	6,794.3	147.3
1983	12,859.0	4,450.2	2,298.4	5,970.0	140.4

a. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

TABLE 6-2
GAS UTILITY INDUSTRY SALES, BY CLASS OF SERVICE AND TYPE OF COMPANY
1977-1983[a]

(Trillions of Btu)

	1977	1978	1979	1980	1981	1982[R]	1983
Distribution							
Total	3,851	4,026	4,151	3,983	3,136[b]	2,981	2,925[b]
Residential	1,782	1,873	1,797	1,718	1,240	1,259	1,282
Commercial	830	880	899	901	737	771	727
Industrial	1,220	1,246	1,424	1,334	1,145	938	897
Other	19	28	31	30	14	13	20
Transmission							
Total	1,934	2,016	2,059	2,616	2,689	2,087	1,826
Residential	2	2	2	2	1	1	1
Commercial	5	4	4	8	7	7	3
Industrial	1,894	1,978	2,035	2,577	2,657	2,055	1,806
Other	33	32	19	29	24	24	17
Integrated							
Total	4,303	4,411	4,724	4,423	5,197[b]	4,910	4,203[b]
Residential	1,390	1,428	1,458	1,359	1,719	1,799	1,560
Commercial	694	704	698	655	778	804	739
Industrial	2,149	2,209	2,455	2,359	2,645	2,254	1,864
Other	69	70	113	50	55	53	40
Combination							
Total	3,623	3,631	3,807	3,705	3,681	3,543	3,269
Residential	1,470	1,485	1,519	1,454	1,369	1,426	1,336
Commercial	753	781	756	763	725	755	703
Industrial	1,357	1,311	1,491	1,446	1,549	1,325	1,192
Other	42	54	42	42	38	38	39
Municipals							
Total	630	664	701	686	672	662	636
Residential	301	319	308	293	281	285	272
Commercial	128	131	129	126	128	134	126
Industrial	176	187	236	241	244	224	212
Other	25	27	28	26	19	20	26

a. All electric generation is included in the Industrial category.
b. Data not directly comparable to previous years due to company reclassification.
R – Revised.
Note: This table depicts total sales as shown on Table 6-1, by company type.

SALES—QUANTITIES

TABLE 6-3
GAS UTILITY INDUSTRY SALES, BY QUARTER AND CLASS OF SERVICE
1960-1983

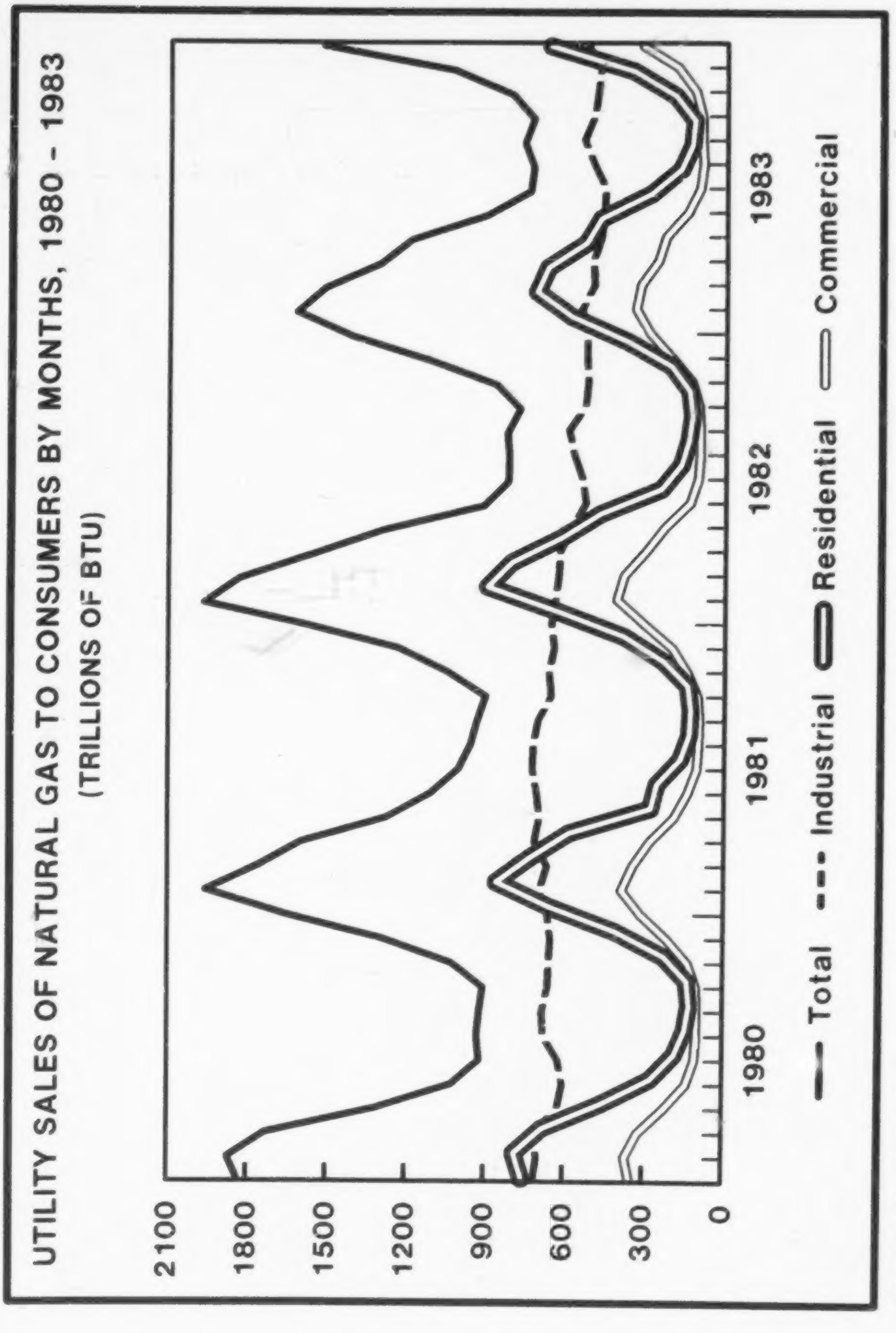
(Trillions of Btu)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	3,124.9	1,459.0	404.6	1,119.7	141.6
Second	2,171.3	679.8	188.0	1,197.1	106.4
Third	1,676.1	265.5	92.7	1,222.1	95.8
Fourth	2,309.7	780.0	232.8	1,170.3	126.6
1965					
First	3,946.6	1,811.2	575.2	1,424.3	135.9
Second	2,818.1	878.9	291.2	1,538.8	109.2
Third	2,212.1	346.1	144.9	1,603.3	117.8
Fourth	3,001.0	961.1	332.8	1,580.0	127.1
1970					
First	5,262.3	2,286.9	867.7	1,939.2	168.6
Second	3,808.1	1,024.3	423.8	2,201.4	158.4
Third	3,041.5	420.7	218.6	2,236.1	166.0
Fourth	3,931.6	1,191.8	496.5	2,062.5	181.0
1975					
First	4,931.5	2,192.8	970.4	1,598.7	169.6
Second	3,520.9	1,137.7	536.3	1,715.9	131.0
Third	2,794.9	474.9	301.2	1,842.2	176.6
Fourth	3,615.6	1,185.6	579.0	1,680.2	170.8
1976					
First	4,893.1	2,165.1	957.6	1,717.0	53.4
Second	3,317.7	963.9	472.4	1,843.8	37.6
Third	2,709.1	446.7	309.2	1,914.0	39.2
Fourth	3,893.5	1,438.5	683.4	1,717.3	54.4
1977					
First	5,010.3	2,395.4	1,019.4	1,534.6	61.0
Second	3,047.7	855.5	448.8	1,701.6	41.8
Third	2,602.9	425.6	314.7	1,822.3	40.3
Fourth	3,680.0	1,269.8	626.5	1,737.9	45.8
1978					
First	5,290.3	2,460.1	1,098.9	1,658.1	73.1
Second	3,220.5	960.2	491.4	1,724.8	44.2
Third	2,613.5	426.6	294.7	1,851.8	40.4
Fourth	3,624.1	1,259.9	614.5	1,696.8	53.0
1979					
First	5,479.5	2,462.8	1,095.8	1,828.2	92.7
Second	3,366.0	965.7	486.3	1,870.8	43.2
Third	2,715.4	431.2	283.8	1,966.5	33.9
Fourth	3,879.4	1,223.4	619.9	1,975.9	60.2
1980					
First	5,433.8	2,218.7	1,031.1	2,118.8	65.2
Second	3,258.8	914.7	464.5	1,845.8	33.8
Third	2,753.6	405.4	300.0	2,019.5	28.7
Fourth	3,967.0	1,287.3	657.7	1,972.5	49.5
1981					
First	5,311.9	2,170.9	1,007.6	2,075.6	57.8
Second	3,385.2	797.5	430.2	2,127.5	30.0
Third	2,792.7	399.5	293.6	2,076.8	22.8
Fourth	3,885.0	1,241.8	644.0	1,959.4	39.8
1982[R]					
First	5,350.7	2,318.2	1,086.6	1,888.2	57.7
Second	3,020.3	880.9	465.1	1,645.6	28.7
Third	2,416.1	404.4	297.2	1,692.4	22.1
Fourth	3,395.6	1,166.3	622.4	1,568.1	38.8
1983					
First	4,439.6	1,917.7	921.9	1,547.1	52.9
Second	2,836.0	934.9	477.4	1,393.5	30.2
Third	2,220.9	382.4	277.5	1,540.7	20.3
Fourth	3,362.5	1,215.2	621.6	1,488.7	37.0

*Prior to 1976, "Other" electric generation (see Table 6-12) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

CHART 6-2



UTILITY SALES OF NATURAL GAS TO CONSUMERS BY MONTHS, 1980 - 1983
(TRILLIONS OF BTU)

REFERENCE: TABLE 6-4

TABLE 6-4
GAS UTILITY INDUSTRY TOTAL SALES, BY MONTH, 1960-1983

(Trillions of Btu)

Year	January	February	March	April	May	June	July	August	September	October	November	December	Total
1960	1,031.3	1,015.3	1,078.4	860.1	693.6	617.5	557.4	561.6	557.0	607.4	753.5	948.9	9.282.0
1965	1,304.0	1,329.2	1,313.4	1,168.2	874.9	775.0	748.0	732.8	731.3	823.5	979.4	1,197.9	11,977.6
1966	1,355.8	1,468.4	1,368.4	1,171.5	1,011.7	865.7	796.8	783.8	799.1	890.3	1,066.8	1,278.6	12,856.9
1967	1,502.8	1,426.1	1,429.8	1,183.9	1,064.2	911.9	829.1	822.3	829.6	923.6	1,151.6	1,411.3	13,486.2
1968	1,671.0	1,589.2	1,556.1	1,241.9	1,100.9	978.8	907.0	878.4	880.7	955.6	1,185.4	1,525.4	14,470.4
1969	1,784.4	1,640.0	1,636.8	1,375.3	1,124.0	1,008.9	988.2	954.5	946.6	1,030.6	1,289.9	1,610.5	15,389.7
1970	1,865.8	1,733.0	1,663.0	1,527.7	1,225.7	1,054.3	1,013.5	1,020.2	1,007.5	1,081.1	1,283.7	1,566.4	16,041.9
1971	1,886.8	1,873.5	1,769.5	1,559.1	1,312.2	1,145.2	1,053.3	1,037.4	1,023.7	1,100.9	1,305.7	1,618.4	16,685.7
1972	1,833.1	1,908.1	1,758.3	1,542.6	1,292.5	1,176.1	1,056.1	1,125.9	1,094.5	1,120.0	1,378.7	1,796.2	17,082.1
1973	1,909.4	1,752.8	1,645.3	1,500.1	1,332.1	1,143.8	1,104.8	1,069.0	1,063.1	1,136.5	1,306.7	1,516.3	16,479.9
1974	1,847.6	1,707.2	1,630.7	1,493.6	1,251.6	1,119.9	1,050.8	1,034.9	992.3	1,115.2	1,219.8	1,536.7	16,000.3
1975	1,709.5	1,633.6	1,588.4	1,455.3	1,120.8	944.8	924.7	934.8	935.4	1,009.2	1,102.8	1,503.6	14,862.9
1976	1,797.5	1,644.6	1,451.0	1,252.2	1,099.8	965.6	913.1	900.8	899.1	996.4	1,278.3	1,614.7	14,813.5
1977	1,901.9	1,682.7	1,425.7	1,168.4	974.8	904.5	875.8	866.5	860.7	976.7	1,153.5	1,549.8	14,340.9
1978	1,808.7	1,834.1	1,647.5	1,237.7	1,061.4	921.4	895.1	878.8	839.6	947.7	1,151.1	1,525.5	14,748.4
1979	1,925.1	1,923.8	1,630.5	1,356.3	1,074.6	934.9	903.7	920.9	891.3	1,038.9	1,253.4	1,587.0	15,440.4
1980	1,834.5	1,871.1	1,728.2	1,315.2	1,024.5	919.1	928.3	919.0	906.3	1,024.6	1,286.9	1,655.5	15,413.2
1981	1,957.2	1,759.7	1,595.0	1,274.4	1,107.7	1,003.1	957.8	933.4	901.5	1,045.1	1,234.9	1,605.0	15,374.8
1982R	1,964.4	1,831.3	1,555.0	1,288.9	911.8	819.6	816.7	823.6	775.8	864.7	1,117.5	1,413.4	14,182.7
1983	1,620.4	1,513.6	1,305.6	1,189.2	906.0	740.8	728.7	762.8	729.4	809.8	1,030.0	1,522.7	12,859.0

R – Revised.

TABLE 6-5
GAS UTILITY INDUSTRY SALES, BY STATE, 1960-1983[a]

(Trillions of Btu)

Division and State	1960	1965	1970	1975	1980	1982R	1983
United States	**9,287.7**	**11,980.3**	**16,043.5**	**14,862.9**	**15,413.2**	**14,182.7**	**12,859.0**
New England	**120.5**	**172.0**	**236.7**	**243.5**	**298.2**	**324.1**	**319.5**
Connecticut	31.5	44.0	61.4	61.0	73.4	79.1	75.9
Maine	1.3	1.3	1.8	2.0	2.2	2.7	2.4
Massachusetts	72.4	105.0	139.5	145.9	182.5	198.8	198.2
New Hampshire	3.0	4.3	6.7	7.8	9.5	10.4	9.6
Rhode Island	11.9	16.9	25.2	23.4	26.4	28.4	28.7
Vermont	0.4	0.5	2.1	3.4	4.1	4.6	4.6
Middle Atlantic	**993.9**	**1,293.4**	**1,651.0**	**1,495.1**	**1,658.2**	**1,641.4**	**1,515.5**
New Jersey	125.9	194.1	294.9	257.9	322.7	333.7	337.2
New York	358.0	475.6	595.9	531.9	600.8	650.6	589.4
Pennsylvania	510.0	623.7	760.2	655.4	734.7	657.1	588.9
East North Central	**1,872.4**	**2,724.4**	**3,896.4**	**3,749.5**	**3,658.1**	**3,341.6**	**3,031.3**
Illinois	509.5	746.5	1,140.3	1,112.4	1,100.3	1,050.0	925.5
Indiana	203.9	344.6	505.0	458.8	475.9	466.3	411.8
Michigan	357.2	545.3	839.4	885.8	850.0	724.0	699.9
Ohio	712.5	891.0	1,084.9	929.8	888.0	789.8	695.2
Wisconsin	89.3	197.0	326.8	362.7	343.9	311.3	299.0
West North Central	**1,040.4**	**1,316.0**	**1,743.7**	**1,592.4**	**1,412.3**	**1,223.6**	**1,133.1**
Iowa	157.7	205.6	292.5	298.8	255.8	231.2	213.6
Kansas	305.6	350.4	459.5	410.4	364.6	273.8	258.8
Minnesota	160.4	230.9	324.3	295.0	267.1	252.0	235.7
Missouri	257.2	333.2	421.0	344.5	326.8	284.4	257.9
Nebraska	126.7	153.7	197.8	187.2	152.5	132.7	122.6
North Dakota	8.5	15.6	18.9	24.7	21.6	24.3	21.2
South Dakota	24.3	26.6	29.7	31.8	23.9	25.1	23.3
South Atlantic	**649.8**	**871.8**	**1,311.1**	**1,106.1**	**1,255.7**	**1,229.0**	**1,153.9**
Delaware	8.9	16.6	24.3	19.3	22.7	23.9	24.2
District of Columbia	18.5	21.8	27.1	24.8	27.6	28.8	27.8
Florida	91.1	144.2	218.7	127.4	232.2	234.4	223.2
Georgia	188.5	210.3	333.8	312.5	299.7	292.2	280.3
Maryland	65.9	96.8	145.1	138.8	154.6	154.9	134.8
North Carolina	41.6	73.9	151.2	104.8	143.2	140.9	132.9
South Carolina	40.6	73.9	120.1	118.3	112.3	100.2	96.9
Virginia	64.3	91.3	133.9	116.0	134.8	140.3	133.5
West Virginia	130.4	143.0	156.9	144.3	128.6	113.4	100.2
East South Central	**600.1**	**729.7**	**995.4**	**752.8**	**807.9**	**709.9**	**663.0**
Alabama	180.3	224.8	290.0	227.9	224.6	191.6	183.8
Kentucky	126.6	142.1	189.9	180.0	175.9	156.7	149.1
Mississippi	146.2	177.1	265.6	141.3	191.5	165.8	145.4
Tennessee	147.0	185.7	249.9	203.5	216.0	195.7	184.7
West South Central	**2,216.5**	**2,408.5**	**3,031.0**	**2,973.6**	**3,534.9**	**3,144.9**	**2,720.7**
Arkansas	177.3	228.6	339.9	219.4	207.4	209.7	182.7
Louisiana	536.8	592.0	742.1	457.3	515.2	462.5	319.2
Oklahoma	248.8	255.0	275.6	417.9	472.3	357.0	322.8
Texas	1,253.6	1,332.9	1,673.4	1,878.9	2,340.0	2,115.7	1,896.0
Mountain	**576.4**	**703.8**	**926.1**	**928.6**	**841.9**	**709.5**	**643.7**
Arizona	110.9	127.3	168.1	144.4	136.4	113.0	106.5
Colorado	160.0	196.5	253.6	269.2	242.3	200.3	190.5
Idaho	22.0	34.8	43.1	51.2	45.4	34.5	30.3
Montana	51.3	67.4	78.8	79.8	54.1	49.5	43.0
Nevada	14.2	29.7	56.0	61.3	62.1	49.5	40.6
New Mexico	112.9	106.2	135.6	142.5	125.7	99.7	85.7
Utah	73.1	101.8	119.1	119.4	121.7	110.1	103.8
Wyoming	32.0	40.1	71.8	60.8	54.3	52.9	43.5
Pacific	**1,217.7**	**1,760.7**	**2,252.1**	**2,021.3**	**1,945.9**	**1,858.8**	**1,678.4**
Alaska	b	5.2	16.6	30.7	32.3	36.5	37.5
California	1,115.4	1,580.1	1,986.8	1,735.6	1,700.0	1,638.0	1,464.5
Hawaii	1.6	2.0	2.8	3.6	3.5	3.2	3.2
Oregon	32.0	59.0	88.1	86.8	76.4	68.0	64.5
Washington	68.7	114.4	157.8	164.6	133.8	113.1	108.8

a. Excludes sales for resale.
b. Not available.
R—Revised.

SALES—QUANTITIES

TABLE 6-6
GAS UTILITY INDUSTRY SALES OF GAS FOR RESALE, BY STATE
1960-1983

(Trillions of Btu)

Division and State	1960*	1965*	1970	1975	1980	1982	1983
United States	**9,257.8**	**12,566.4**	**17,575.6**	**14,504.5**	**15,705.1**	**14,544.9**	**12,536.6**
New England	**135.5**	**194.0**	**276.0**	**271.5**	**299.8**	**306.7**	**305.9**
Connecticut			83.0	82.7	76.4	78.3	75.1
Maine			0.0	0.0	0.0	0.0	0.0
Massachusetts			156.6	160.0	188.8	195.2	195.9
New Hampshire			8.6	5.8	6.8	7.1	7.1
Rhode Island			27.8	21.8	27.9	26.1	27.8
Vermont			0.0	1.3	0.0	0.0	0.0
Middle Atlantic	**1,337.4**	**1,827.4**	**2,433.3**	**1,901.6**	**2,334.0**	**2,313.0**	**2,074.7**
New Jersey			491.9	370.2	510.6	495.3	554.9
New York			802.5	572.2	707.5	770.8	670.6
Pennsylvania			1,138.9	959.2	1,115.9	1,046.9	849.1
East North Central	**1,999.8**	**3,296.3**	**5,249.0**	**4,542.8**	**4,442.0**	**4,068.6**	**3,399.7**
Illinois			1,688.6	1,537.1	1,613.3	1,569.1	1,305.7
Indiana			513.6	406.8	461.4	456.6	350.9
Michigan			698.5	759.4	615.8	470.7	470.1
Ohio			1,892.4	1,356.1	1,315.3	1,209.1	951.1
Wisconsin			455.9	483.4	436.1	363.1	322.0
West North Central	**759.7**	**975.2**	**1,306.9**	**1,144.5**	**1,043.9**	**951.7**	**876.1**
Iowa			271.0	259.7	208.9	184.7	164.4
Kansas			206.4	169.7	149.4	138.6	124.5
Minnesota			272.6	239.0	239.1	217.8	203.1
Missouri			405.2	338.0	337.8	306.3	284.2
Nebraska			124.7	111.7	86.4	80.9	77.3
North Dakota			5.2	5.5	4.9	5.6	5.4
South Dakota			21.8	20.8	17.5	17.8	17.1
South Atlantic	**1,223.6**	**1,605.2**	**1,981.1**	**1,372.5**	**1,470.3**	**1,256.7**	**1,163.2**
Delaware			1.1	1.2	1.2	1.6	1.5
District of Columbia			0.0	0.0	0.0	0.0	0.0
Florida			63.4	82.7	94.7	83.8	91.7
Georgia			327.0	315.5	308.7	278.9	257.4
Maryland			183.1	151.0	184.5	169.4	137.9
North Carolina			157.9	118.5	165.8	157.6	137.4
South Carolina			166.5	127.6	135.2	96.6	96.6
Virginia			218.3	181.9	209.1	199.4	238.3
West Virginia			863.8	394.1	371.2	269.5	202.3
East South Central	**1,009.5**	**1,116.2**	**1,573.5**	**1,178.0**	**1,256.5**	**1,121.6**	**994.1**
Alabama			237.0	219.3	219.8	184.5	185.6
Kentucky			417.6	238.4	237.3	214.3	185.0
Mississippi			349.3	263.1	289.1	268.1	213.8
Tennessee			569.6	457.3	510.3	454.5	409.8
West South Central	**1,199.7**	**1,136.4**	**1,497.3**	**1,215.9**	**2,007.4**	**1,930.3**	**1,389.1**
Arkansas			22.6	16.1	16.0	14.4	14.0
Louisiana			854.6	569.2	661.9	679.9	515.3
Oklahoma			166.6	148.6	206.2	198.1	157.4
Texas			453.6	482.1	1,123.3	1,037.9	702.4
Mountain	**1,304.2**	**1,562.0**	**2,021.0**	**1,901.8**	**1,871.0**	**1,705.8**	**1,488.3**
Arizona			1,477.8	1,341.0	1,370.5	1,246.4	1,093.8
Colorado			249.0	279.6	261.8	214.8	208.3
Idaho			73.0	84.2	66.7	58.6	50.8
Montana			7.5	7.7	7.6	5.8	4.9
Nevada			5.8	9.5	9.9	10.2	9.2
New Mexico			104.9	71.8	58.6	66.4	52.0
Utah			21.3	7.4	8.4	7.4	4.1
Wyoming			81.6	100.6	87.5	96.3	65.2
Pacific	**288.4**	**853.7**	**1,237.6**	**975.9**	**980.1**	**890.5**	**845.4**
Alaska			0.0	0.0	27.4	0.0	0.0
California			680.5	346.5	436.5	455.9	425.7
Hawaii			0.0	0.0	0.0	0.0	0.0
Oregon			399.9	470.2	388.3	323.1	310.4
Washington			157.2	159.1	127.8	111.6	109.3

*Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.

TABLE 6-7
GAS UTILITY INDUSTRY SALES, BY STATE AND CLASS OF SERVICE, 1983

(Trillions of Btu)

		Class of Service					
Division and State	Total	Residential	Commercial	Industrial[a]	Other	Average Btu Value	Electric Generation Included[b]
United States	**12,859.0**	**4,450.2**	**2,298.4**	**5,970.0**	**140.4**	**1,026.3**	**1,605.5**
New England	**319.5**	**140.4**	**80.8**	**95.3**	**2.9**	**1,026.9**	**29.0**
Connecticut	75.9	31.6	24.1	20.2	0.1	1,030.5	0.0
Maine	2.4	0.5	1.1	0.8	0.0	1,000.0	0.0
Massachusetts	198.2	88.5	46.4	61.0	2.4	1,026.0	26.5
New Hampshire	9.6	4.3	3.5	1.6	0.1	1,009.8	0.0
Rhode Island	28.7	14.1	4.8	9.8	0.0	1,036.8	2.5
Vermont	4.6	1.4	0.9	2.0	0.3	992.9	0.0
Middle Atlantic	**1,515.5**	**728.6**	**307.9**	**440.2**	**38.8**	**1,025.6**	**26.9**
New Jersey	337.2	149.1	81.4	106.4	0.2	1,034.1	26.0
New York	589.4	322.0	114.0	127.3	26.1	1,018.4	0.2
Pennsylvania	588.9	257.4	112.4	206.5	12.5	1,028.0	0.6
East North Central	**3,031.3**	**1,377.2**	**625.8**	**1,019.8**	**8.5**	**1,019.2**	**18.6**
Illinois	925.5	434.9	205.1	285.2	0.3	1,024.3	11.3
Indiana	411.8	141.2	62.0	207.1	1.6	991.1	0.2
Michigan	699.9	346.4	162.2	191.0	0.3	1,019.4	2.6
Ohio	695.2	341.2	142.2	205.5	6.2	1,032.9	0.9
Wisconsin	299.0	113.5	54.3	131.0	0.2	1,010.1	3.5
West North Central	**1,133.1**	**451.2**	**275.5**	**400.7**	**5.7**	**1,005.8**	**23.3**
Iowa	213.6	77.7	48.0	87.7	0.2	1,011.6	2.7
Kansas	258.8	80.7	46.2	128.6	3.2	997.8	16.7
Minnesota	235.7	97.6	51.6	86.1	0.4	1,001.7	1.8
Missouri	257.9	127.5	79.7	49.0	1.8	1,020.4	0.8
Nebraska	122.6	47.2	32.3	43.0	0.1	991.6	1.2
North Dakota	21.2	9.7	10.3	1.2	c	1,000.0	c
South Dakota	23.3	10.7	7.5	5.1	c	1,000.9	0.0
South Atlantic	**1,153.9**	**328.5**	**236.5**	**581.4**	**7.4**	**1,030.6**	**109.5**
Delaware	24.2	6.4	3.6	13.0	1.2	1,035.0	0.0
District of Columbia	27.8	12.5	15.3	0.0	0.0	1,021.0	0.0
Florida	223.2	15.1	30.3	174.6	3.3	1,044.5	107.0
Georgia	280.3	91.8	57.2	130.7	0.5	1,027.1	1.7
Maryland	134.8	64.9	30.2	39.7	0.1	1,024.6	0.0
North Carolina	132.9	31.9	24.6	76.3	0.1	1,033.1	0.5
South Carolina	96.9	18.8	16.9	60.9	0.3	1,026.3	0.3
Virginia	133.5	45.3	38.0	48.3	1.9	1,029.6	0.0
West Virginia	100.2	41.8	20.4	38.0	c	1,021.5	0.1
East South Central	**663.0**	**182.2**	**110.3**	**355.9**	**14.6**	**1,026.3**	**37.4**
Alabama	183.8	49.7	25.6	107.4	1.0	1,030.1	c
Kentucky	149.1	63.3	28.6	51.7	5.6	1,017.4	0.0
Mississippi	145.4	27.9	13.9	98.1	5.5	1,021.3	37.4
Tennessee	184.7	41.3	42.1	98.7	2.6	1,034.3	0.0
West South Central	**2,720.7**	**426.1**	**237.3**	**2,013.1**	**44.2**	**1,033.1**	**825.6**
Arkansas	182.7	42.8	27.5	112.2	0.2	995.8	28.2
Louisiana	319.2	67.5	25.6	210.7	15.5	1,048.8	40.3
Oklahoma	322.8	80.3	44.4	197.4	0.7	1,023.5	30.9
Texas	1,896.0	235.4	140.0	1,492.8	27.8	1,036.0	726.2
Mountain	**643.7**	**241.9**	**156.0**	**230.9**	**14.9**	**1,019.8**	**44.8**
Arizona	106.5	30.4	21.3	52.7	2.1	1,048.8	16.6
Colorado	190.5	83.7	63.0	43.3	0.4	987.6	4.1
Idaho	30.3	6.8	8.5	15.0	0.0	1,059.4	0.0
Montana	43.0	18.0	12.1	10.5	1.9	977.9	c
Nevada	40.6	12.2	12.0	16.0	0.4	1,032.4	10.1
New Mexico	85.7	28.5	14.8	32.1	10.2	1,053.0	14.0
Utah	103.8	48.8	14.8	40.1	c	1,038.0	0.0
Wyoming	43.5	13.3	9.4	20.7	0.1	985.9	0.0
Pacific	**1,678.4**	**574.1**	**268.3**	**832.8**	**3.3**	**1,042.1**	**490.5**
Alaska	37.5	10.4	3.7	23.3	0.0	1,004.9	18.3
California	1,464.5	518.5	219.2	724.1	2.7	1,042.6	472.2
Hawaii	3.2	0.6	0.6	1.9	0.0	1,022.8	0.0
Oregon	64.5	17.4	15.5	31.6	0.0	1,046.2	c
Washington	108.8	27.2	29.3	51.8	0.5	1,045.9	c

a. Includes Electric Generation.
b. Included in Industrial.
c. Less than 0.05 trillion Btu.

SALES—QUANTITIES

TABLE 6-8
GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS SALES BY STATE, 1983

(Trillions of Btu)

Division and State	Commercial			Industrial		
	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**2,298.4**	**2,142.6**	**155.8**	**5,970.0**	**3,157.3**	**2,812.7**
New England	**80.8**	**69.6**	**11.3**	**95.3**	**27.9**	**67.4**
Connecticut	24.1	16.4	7.8	20.2	10.2	9.9
Maine	1.1	1.1	0.0	0.8	0.6	0.2
Massachusetts	46.4	43.0	3.4	61.0	14.2	46.8
New Hampshire	3.5	3.5	0.0	1.6	0.5	1.1
Rhode Island	4.8	4.6	0.1	9.8	2.3	7.4
Vermont	0.9	0.9	0.0	2.0	a	2.0
Middle Atlantic	**307.9**	**295.7**	**12.2**	**440.2**	**306.8**	**133.4**
New Jersey	81.4	74.4	7.0	106.4	41.2	65.3
New York	114.0	111.6	2.4	127.3	88.2	39.0
Pennsylvania	112.4	109.6	2.8	206.5	177.4	29.1
East North Central	**625.8**	**611.6**	**14.2**	**1,019.8**	**815.7**	**204.1**
Illinois	205.1	204.6	0.5	285.2	241.0	44.2
Indiana	62.0	58.2	3.9	207.1	167.1	39.9
Michigan	162.2	160.6	1.6	191.0	160.3	30.7
Ohio	142.2	141.1	1.2	205.5	192.6	12.9
Wisconsin	54.3	47.2	7.0	131.0	54.6	76.4
West North Central	**275.5**	**223.1**	**52.4**	**400.7**	**150.0**	**250.8**
Iowa	48.0	39.7	8.3	87.7	58.6	29.1
Kansas	46.2	30.5	15.7	128.6	30.1	98.5
Minnesota	51.6	43.2	8.3	86.1	27.1	59.0
Missouri	79.7	64.5	15.2	49.0	11.0	38.0
Nebraska	32.3	31.0	1.2	43.0	22.3	20.8
North Dakota	10.3	7.4	3.0	1.2	a	1.2
South Dakota	7.5	6.8	0.7	5.1	0.9	4.2
South Atlantic	**236.5**	**210.3**	**26.2**	**581.4**	**240.8**	**340.7**
Delaware	3.6	3.4	0.2	13.0	9.3	3.7
District of Columbia	15.3	11.4	3.9	0.0	0.0	0.0
Florida	30.3	27.9	2.3	174.6	16.1	158.5
Georgia	57.2	57.0	0.2	130.7	15.9	114.8
Maryland	30.2	22.4	7.8	39.7	27.6	12.1
North Carolina	24.6	24.6	0.0	76.3	70.7	5.6
South Carolina	16.9	13.0	4.0	60.9	27.5	33.4
Virginia	38.0	30.8	7.2	48.3	35.9	12.4
West Virginia	20.4	19.8	0.6	38.0	37.8	0.2
East South Central	**110.3**	**100.9**	**9.4**	**355.9**	**215.0**	**140.9**
Alabama	25.6	22.0	3.7	107.4	56.9	50.5
Kentucky	28.6	26.6	2.0	51.7	23.5	28.2
Mississippi	13.9	13.9	a	98.1	89.3	8.9
Tennessee	42.1	38.4	3.7	98.7	45.4	53.3
West South Central	**237.3**	**231.5**	**5.8**	**2,013.1**	**1,216.2**	**796.9**
Arkansas	27.5	27.3	0.1	112.2	71.7	40.5
Louisiana	25.6	25.4	0.1	210.7	147.8	62.9
Oklahoma	44.4	40.2	4.2	197.4	109.0	88.4
Texas	140.0	138.6	1.4	1,492.8	887.7	605.2
Mountain	**156.0**	**154.9**	**1.1**	**230.9**	**122.4**	**108.4**
Arizona	21.3	21.3	0.0	52.7	52.5	0.2
Colorado	63.0	62.7	0.4	43.3	5.3	38.0
Idaho	8.5	8.5	0.0	15.0	14.8	0.1
Montana	12.1	11.8	0.3	10.9	1.0	9.9
Nevada	12.0	12.0	0.0	16.0	16.0	0.0
New Mexico	14.8	14.5	0.4	32.1	20.5	11.6
Utah	14.8	14.8	0.0	40.1	7.8	32.4
Wyoming	9.4	9.3	a	20.7	4.4	16.3
Pacific	**268.3**	**245.0**	**23.2**	**832.8**	**62.7**	**770.1**
Alaska	3.7	3.7	0.0	23.3	5.1	18.3
California	219.2	204.4	14.8	724.1	17.9	706.2
Hawaii	0.6	0.6	0.0	1.9	1.9	0.0
Oregon	15.5	15.0	0.5	31.6	13.5	18.1
Washington	29.3	21.4	7.9	51.8	24.2	27.6

a. Less than 0.05 trillion Btu.

TABLE 6-9
GAS UTILITY INDUSTRY SALES BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1983

(Trillions of Btu)

Industry Classification	1960	1965	1970	1975	1980	1982[R]	1983
Agriculture, forestry and fisheries	10.8	12.0	33.0	49.7	47.1	70.2	31.5
Petroleum and natural gas production	48.3	97.8	101.0	83.8	32.2	30.6	42.0
Other mining	44.8	69.8	59.8	49.3	55.6	52.6	36.0
Electric services[a]	1,420.4	1,734.2	2,588.6	1,685.2	2,520.5	2,301.3	1,973.8
Other transportation, communications and public utilities	22.4	38.5	96.2	95.9	92.5	75.2	81.7
Hotels, rooming houses, camps	16.2	33.5	67.3	77.8	27.8	31.0	30.3
Laundries, cleaning and dyeing	4.0	16.3	21.5	24.3	22.0	26.2	27.4
Other services	34.2	70.1	175.1	236.7	309.5	360.4	362.8
Other non-manufacturing	43.1	74.9	198.6	187.5	151.8	244.2	238.4
Ordnance	14.1	21.2	35.4	b	b	b	b
Food and kindred products	167.8	243.0	330.5	338.9	320.2	327.1	279.8
Textile products, apparel, fabrics, etc.	22.6	43.7	72.5	54.6	64.3	56.9	58.9
Furniture, lumber and other wood products	23.1	52.3	64.9	61.1	45.7	49.1	64.6
Paper and allied products	193.2	267.5	402.7	267.6	257.8	221.8	200.8
Carbon black	15.0	42.0	52.8	38.2	34.1	14.1	4.1
Chemicals and allied products (except carbon black)	519.6	644.6	880.7	886.5	603.8	729.8	545.9
Petroleum refining	384.1	375.1	639.6	514.5	372.0	302.3	221.4
Rubber and miscellaneous plastic products	16.8	38.9	47.8	45.1	50.7	56.0	48.7
Glass products	138.4	184.8	208.8	173.7	170.9	144.8	135.8
Cement	169.6	183.5	195.0	158.1	49.2	14.9	10.6
Clay products, pottery, etc.	129.6	153.7	145.3	110.0	86.4	57.5	53.5
Other stone products and miscellaneous	30.8	68.3	82.3	97.0	85.5	60.3	53.6
Primary iron and steel industries	346.1	552.4	669.0	555.5	546.3	387.9	310.7
Primary non-ferrous industries	208.1	270.8	232.9	275.9	194.4	185.9	175.6
Fabricated metal products, machinery equipment and supplies	110.7	181.6	289.8	276.8	233.1	218.5	187.2
Transportation equipment	65.1	112.0	170.8	140.2	84.4	81.1	71.0
Other manufacturing	33.9	63.3	100.0	122.1	121.0	93.1	87.9
Public Administration	c	c	c	72.1	70.0	83.4	98.1
Unclassified	e	e	e	e	e	1,439.9	1,230.4
Total (Sum)[a]	**4,232.8**	**5,645.9**	**7,961.9**	**6,678.3**	**6,648.8**	**7,716.0**	**6,662.2**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**4,512.7**	**6,050.0**	**8,022.9**	**8,786.0**	**7,851.5**	**6,785.0**	**5,986.0**
Total Gas Utility Industry Commercial, Industrial and "Other" sales[d]	**5,179.8**	**6,636.5**	**9,113.2**	**9,871.9**	**10.587.0**	**9,413.0**	**8,408.8**

a. Includes the following quantities of gas for electric generation not included in Total Commercial, Industrial, and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department to the electric department of combination gas and electric companies. Quantities in trillions of Btu's are: 1960–234.1; 1965-245.2; 1970-283.6; 1975-301.6; 1980-416.7; 1982-367.9; 1983-368.3. Also includes sales from some companies with electric services sales but not reporting this table.

b. Classification eliminated.

c. New classification in 1972.

d. Includes Industrial and "Other" sales only prior to 1971.

e. New classification in 1982.

R – Revised.

TABLE 6-10

GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1983

(Trillions of Btu)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	31.5	0.5	0.5	5.9	6.3	0.3	1.1	4.0	1.7	11.1
Petroleum and natural gas production	42.0	a	a	7.7	16.9	0.0	0.9	6.5	6.2	3.9
Other mining	36.0	0.1	0.1	4.0	0.7	8.5	a	9.4	9.1	4.2
Electric services[b]	1,973.8	29.0	234.7	22.4	26.9	118.6	38.3	954.0	59.3	490.5
Other transportation, communication, and public utilities	81.7	6.6	4.6	19.1	23.7	1.8	1.3	8.1	4.0	12.4
Hotels, rooming houses, and camps	30.3	0.7	2.4	9.7	3.4	1.2	0.8	0.5	0.9	10.6
Laundries, cleaning and dyeing	27.4	0.6	2.0	8.4	1.3	1.6	1.4	0.3	0.2	11.8
Other services	362.8	9.0	34.5	152.7	40.9	16.8	14.0	10.2	11.3	73.2
Other non-manufacturing	238.4	13.6	31.1	108.5	20.1	5.2	8.2	1.4	4.2	46.1
Food and kindred products	279.8	3.1	24.7	90.9	53.1	21.3	9.6	6.5	13.6	57.1
Textile products, apparel, fabrics, etc.	58.9	3.3	4.8	3.0	0.2	35.3	7.3	0.6	0.2	4.2
Furniture, lumber, and other wood products	64.6	a	1.9	6.0	1.3	3.7	19.9	18.8	0.6	12.2
Paper and allied products	200.8	3.5	21.5	52.6	8.5	26.4	36.7	12.3	8.1	31.2
Carbon black	4.1	0.0	0.0	0.4	0.0	0.5	0.2	2.6	0.0	0.3
Chemicals and allied products (except carbon black)	545.9	2.6	25.0	83.6	62.4	69.5	37.3	235.9	6.8	22.9
Petroleum refining	221.4	0.0	6.4	13.7	5.6	7.7	4.6	107.8	7.5	68.2
Rubber and miscellaneous plastic products	48.7	0.7	5.0	15.5	3.5	4.4	7.8	8.4	a	3.4
Glass products	135.8	3.1	34.9	34.8	4.8	18.9	10.3	9.4	0.0	19.5
Cement	10.6	a	a	0.9	1.7	2.5	1.1	0.7	1.0	2.6
Clay products, pottery, etc.	53.5	0.8	3.7	5.9	8.3	20.4	4.5	1.2	3.6	5.0
Other stone products and miscellaneous	53.6	0.8	7.7	7.8	7.9	15.5	1.4	0.1	2.1	10.2
Primary iron and steel industries	310.7	1.9	41.9	203.5	14.8	18.6	13.9	1.5	0.8	13.9
Primary non-ferrous industries	175.6	1.5	20.8	59.1	8.2	5.1	19.8	17.0	29.2	15.0
Fabricated metal products, machinery equipment and supplies	187.2	5.4	25.4	95.8	14.6	8.4	10.5	4.1	1.5	21.5
Transportation equipment	71.0	0.6	7.3	39.7	7.6	2.9	3.2	1.1	0.6	8.0
Other manufacturing	87.9	2.6	16.6	29.7	5.9	5.7	5.1	4.6	3.3	14.2
Public administration	98.1	1.9	10.4	15.7	10.4	19.7	7.0	6.2	8.4	18.5
Unclassified	1,230.4	28.0	299.1	201.7	173.5	193.2	49.9	109.0	122.3	53.9
Total (Sum)[b]	**6,662.2**	**120.1**	**867.0**	**1,298.6**	**532.5**	**633.8**	**316.3**	**1,542.3**	**306.5**	**1,045.1**
Total Commercial, Industrial and "Other" sales of co.'s reporting this table	**5,986.0**	**111.2**	**659.1**	**1,292.5**	**528.2**	**621.4**	**315.3**	**1,158.4**	**285.1**	**1,014.7**
Total Gas Utility Industry Commercial, Industrial and "Other" sales	**8,408.8**	**179.0**	**786.9**	**1,654.2**	**681.9**	**825.4**	**480.8**	**2,294.6**	**401.8**	**1,104.3**

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a. Less than 0.05 trillions of Btu.

b. Includes the following quantites for electric generation not included in Total Commercial, Industrial and "Other" sales of companies reporting this table or in Total Gas Utility Industry sales. Such quantities represent transfers by the gas department of the electric department of combination gas and electric companies:

368.3 0.0 207.9 3.8 3.7 9.1 0.9 128.4 14.5 0.0

TABLE 6-11
GAS CONSUMED FOR ELECTRIC GENERATION,* BY STATE, 1960-1983

(Millions of Cubic Feet)

Division and State	1960	1965	1970	1975	1980	1982	1983
United States	**1,724,762**	**2,321,101**	**3,931,860**	**3,146,874**	**3,681,595**	**3,226,552**	**2,911,771**
New England	**12,885**	**13,918**	**8,133**	**2,523**	**7,001**	**16,191**	**27,714**
Connecticut	1,756	337	147	344	0	0	0
Maine	0	0	0	0	0	0	0
Massachusetts	10,785	13,098	5,668	1,437	5,083	15,289	24,396
New Hampshire	0	0	0	177	0	0	20
Rhode Island	344	483	2,319	11	1,679	794	3,079
Vermont	0	0	0	555	239	107	220
Middle Atlantic	**89,288**	**97,850**	**161,385**	**23,426**	**206,769**	**219,617**	**234,351**
New Jersey	25,482	22,440	45,891	8,601	79,513	65,476	96,886
New York	57,819	74,189	106,141	13,613	124,391	152,575	135,811
Pennsylvania	5,987	1,221	9,354	1,213	2,865	1,568	1,654
East North Central	**61,407**	**66,232**	**278,143**	**118,394**	**65,883**	**31,610**	**31,990**
Illinois	42,348	34,618	132,382	34,176	19,165	10,387	11,948
Indiana	8,790	13,272	29,507	10,994	1,904	2,703	2,877
Michigan	5,209	2,989	64,270	47,151	26,368	12,972	12,618
Ohio	2,992	2,947	21,380	6,139	4,706	1,231	1,046
Wisconsin	2,068	14,406	30,604	19,935	13,740	4,319	3,500
West North Central	**245,084**	**303,818**	**420,086**	**264,825**	**143,387**	**72,879**	**57,825**
Iowa	48,587	52,238	77,910	46,929	6,835	2,502	3,249
Kansas	82,195	112,955	167,885	127,818	101,022	61,062	47,217
Minnesota	48,521	51,420	58,954	22,709	8,077	3,274	2,857
Missouri	30,251	47,552	62,970	26,320	15,329	4,443	2,865
Nebraska	30,973	36,269	47,641	37,659	11,850	1,555	1,581
North Dakota	103	25	362	157	15	17	11
South Dakota	4,454	3,359	4,364	3,232	259	32	45
South Atlantic	**147,439**	**117,395**	**343,408**	**199,105**	**191,409**	**194,773**	**187,727**
Delaware	3,190	4,611	3,744	1,697	6,999	5,203	5,023
District of Colmbia	0	0	0	0	0	0	0
Florida	88,518	87,001	198,367	141,153	166,047	182,471	174,720
Georgia	25,336	831	58,674	40,282	3,666	1,511	1,633
Maryland	78	56	11,435	451	5,230	935	1,800
North Carolina	4,660	2,895	21,126	101	1,702	77	163
South Carolina	23,278	18,801	45,081	14,566	5,418	517	942
Virginia	1,438	2,268	4,276	496	2,285	3,928	3,330
West Virginia	941	932	705	358	62	131	115
East South Central	**53,249**	**78,626**	**140,940**	**37,774**	**99,461**	**86,014**	**51,629**
Alabama	9,378	5,561	15,444	5,994	1,382	1,338	553
Kentucky	2,288	453	8,533	272	1,902	1,519	1,196
Mississippi	34,358	56,360	99,710	31,507	95,073	83,155	49,773
Tennessee	7,225	16,252	17,253	0	1,104	0	107
West South Central	**656,727**	**1,009,857**	**1,735,541**	**2,042,085**	**2,243,820**	**1,939,279**	**1,758,428**
Arkansas	46,779	67,510	107,445	31,818	58,863	33,444	33,275
Louisiana	119,818	175,573	331,750	356,130	424,991	372,706	296,490
Oklahoma	82,820	127,231	234,721	300,848	329,940	246,920	236,950
Texas	407,310	639,543	1,061,625	1,353,290	1,430,026	1,286,208	1,191,713
Mountain	**134,990**	**136,442**	**198,745**	**164,636**	**175,032**	**101,211**	**65,661**
Arizona	53,246	36,740	58,898	17,693	49,699	31,256	19,209
Colorado	37,015	35,539	51,194	52,930	31,928	6,044	4,526
Idaho	0	0	0	18	46	5	9
Montana	341	1,992	2,529	1,059	4,182	336	335
Nevada	6,339	13,271	25,336	25,152	27,541	15,690	9,562
New Mexico	33,701	43,996	54,894	64,239	56,280	44,724	30,626
Utah	3,677	4,742	3,520	2,725	5,133	3,020	1,259
Wyoming	671	163	2,373	819	222	133	136
Pacific	**323,693**	**494,963**	**645,478**	**294,105**	**548,833**	**564,978**	**496,445**
Alaska	0	2,149	8,198	19,619	28,763	30,991	31,348
California	322,992	492,701	636,270	274,483	518,808	533,832	465,066
Hawaii	0	0	0	0	0	0	0
Oregon	701	113	1,010	3	321	33	1
Washington	0	0	0	0	941	121	30

*Includes direct sales by producers to electric utilities as well as sales by the gas utility industry.

Source: U.S. Department of Energy, Energy Information Administration, *Electric Power Monthly*, January 1983 – December 1983.

TABLE 6-12
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION, 1960-1983[a]

(Trillions of Btu)

Year	Sales						
	Industrial[b]						
	Firm	Interruptible	Other	Total Sales	Transfers[c]	Total Sales and Transfers
1960	999.3		187.1	1,186.4	234.1	1,420.4
1961	990.6		218.6	1,209.2	244.0	1,453.2
1962	1,040.7		259.0	1,299.7	239.1	1,538.8
1963	1,103.2		306.6	1,409.7	247.1	1,656.8
1964	1,258.3		347.0	1,605.3	265.4	1,870.7
1965	1,179.5		308.5	1,488.0	246.2	1,734.2
1966	1,276.2		367.8	1,644.0	260.2	1,904.2
1967	1,386.9		316.7	1,703.6	254.3	1,957.9
1968	1,489.6		381.3	1,870.9	270.[illegible]	2,141.8
1969	1,643.9		360.8	2,004.7	232.6	2,237.3
1970	1,877.5		427.5	2,305.0	283.6	2,588.6
1971	853.6	1,083.6	483.4	2,420.6	595.2	3,015.9
1972	956.5	858.4	553.3	2,368.4	549.5	2,917.9
1973	542.8	871.6	511.4	1,925.8	477.2	2,403.0
1974	497.2	812.5	387.9	1,697.6	419.8	2,117.4
1975	374.5	623.4	385.8	1,383.6	301.6	1,685.2
1976	478.1	889.5	d	1,367.6	250.9	1,618.5
1977	489.1	959.6	d	1,448.7	241.1	1,689.8
1978	544.2	854.0	d	1,398.2	187.9	1,586.1
1979	665.2	980.0	d	1,645.2	335.0	1,980.2
1980	974.0	1,129.8	d	2,103.8	416.7	2,520.5
1981	996.6	1,259.3	d	2,255.9	344.0	2,599.8
1982[R]	775.8	1,157.6	d	1,933.4	367.9	2,301.3
1983	632.2	973.4	d	1,605.5	368.3	1,973.8

a. Excludes direct sales by producers to electric utilities.
b. No breakdown available prior to 1971.
c. Represents transfers by the gas department to the electric department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.
R—Revised.

TABLE 6-13
GAS UTILITY INDUSTRY GAS USED FOR ELECTRIC GENERATION BY STATE, 1983[a]

(Trillions of Btu)

Division and State	Industrial Sales Firm	 Interruptible	 Total	Transfers[b]	Total Sales and Transfers
United States	**632.2**	**973.4**	**1,605.5**	**368.3**	**1,973.8**
New England	**0.0**	**29.0**	**29.0**	**0.0**	**29.0**
Connecticut	0.0	0.0	0.0	0.0	0.0
Maine	0.0	0.0	0.0	0.0	0.0
Massachusetts	0.0	26.5	26.5	0.0	26.5
New Hampshire	0.0	0.0	0.0	0.0	0.0
Rhode Island	0.0	2.5	2.5	0.0	2.5
Vermont	0.0	0.0	0.0	0.0	0.0
Middle Atlantic	**0.6**	**26.3**	**26.9**	**207.9**	**234.7**
New Jersey	0.0	26.0	26.0	73.1	99.1
New York	0.2	0.0	0.2	134.8	135.0
Pennsylvania	0.3	0.3	0.6	c	0.6
East North Central	**10.8**	**7.7**	**18.6**	**3.8**	**22.4**
Illinois	8.3	3.0	11.3	1.0	12.3
Indiana	0.2	0.0	0.2	2.7	2.9
Michigan	1.6	1.0	2.6	0.0	2.6
Ohio	0.6	0.4	0.9	0.1	1.0
Wisconsin	0.1	3.4	3.5	0.0	3.5
West North Central	**1.9**	**21.3**	**23.3**	**3.7**	**26.9**
Iowa	0.3	2.4	2.7	0.6	3.3
Kansas	0.7	16.0	16.7	1.3	18.1
Minnesota	c	1.8	1.8	1.3	3.1
Missouri	c	0.7	0.8	0.5	1.2
Nebraska	0.9	0.3	1.2	c	1.2
North Dakota	0.0	c	c	0.0	c
South Dakota	0.0	0.0	0.0	c	c
South Atlantic	**0.7**	**108.8**	**109.5**	**9.1**	**118.6**
Delaware	0.0	0.0	0.0	4.1	4.1
District of Columbia	0.0	0.0	0.0	0.0	0.0
Florida	0.4	106.5	107.0	0.0	107.0
Georgia	0.0	1.7	1.7	0.0	1.7
Maryland	0.0	0.0	0.0	1.5	1.5
North Carolina	c	0.5	0.5	0.0	0.5
South Carolina	0.3	0.0	0.3	0.4	0.7
Virginia	0.0	0.0	0.0	3.2	3.2
West Virginia	0.0	0.1	0.1	0.0	0.1
East South Central	**31.1**	**6.3**	**37.4**	**0.9**	**38.3**
Alabama	c	c	c	0.0	c
Kentucky	0.0	0.0	0.0	0.6	0.6
Mississippi	31.1	6.3	37.4	0.2	37.5
Tennessee	0.0	0.0	0.0	0.2	0.2
West South Central	**557.9**	**267.7**	**825.6**	**128.4**	**954.0**
Arkansas	0.0	28.2	28.2	0.0	28.2
Louisiana	23.7	16.6	40.3	24.7	65.0
Oklahoma	24.6	6.3	30.9	69.2	100.2
Texas	509.7	216.5	726.2	34.4	760.6
Mountain	**29.1**	**15.7**	**44.8**	**14.5**	**59.3**
Arizona	16.5	0.1	16.6	9.3	25.9
Colorado	c	4.1	4.1	0.3	4.4
Idaho	0.0	0.0	0.0	0.0	0.0
Montana	0.0	c	c	0.3	0.3
Nevada	10.1	0.0	10.1	4.6	14.8
New Mexico	2.5	11.5	14.0	0.0	14.0
Utah	0.0	0.0	0.0	0.0	0.0
Wyoming	0.0	0.0	0.0	0.0	0.0
Pacific	**c**	**490.5**	**490.5**	**0.0**	**490.5**
Alaska	0.0	18.3	18.3	0.0	18.3
California	0.0	472.2	472.2	0.0	472.2
Hawaii	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	c	c	0.0	c
Washington	c	0.0	c	0.0	c

a. Excludes direct sales by producers to electric utilities.
b. Volumes transferred by the gas department to the electric department of combination gas and electric companies.
c. Less than 0.05 trillion Btu.

TABLE 6-14
TOTAL LIQUEFIED PETROLEUM GAS SALES BY CONSUMING SECTOR
1960-1982[a]

(Trillions of Btu)

		Sector			
Year	Total	Residential	Commercial	Industrial	Transportation
1960	911.7	342.9	60.5	489.1	19.1
1961	938.2	350.5	61.9	506.8	19.0
1962	1,024.7	382.6	67.5	554.3	20.3
1963	1,107.9	410.2	72.4	604.0	21.3
1964	1,183.6	420.6	74.2	663.6	25.3
1965	1,231.8	434.0	76.6	697.0	24.3
1966	1,299.3	461.2	81.4	734.0	22.7
1967	1,322.0	483.3	85.3	732.9	20.5
1968	1,472.8	519.1	91.6	839.9	22.1
1969	1,695.6	589.6	104.1	975.9	26.1
1970	1,688.5	578.9	102.2	981.1	26.4
1971	1,722.9	585.4	103.3	1,003.8	30.3
1972	1,954.6	628.0	110.8	1,179.1	36.7
1973	1,980.7	594.8	105.0	1,242.0	39.0
1974	1,913.8	545.9	96.3	1,230.7	40.9
1975	1,807.1	527.8	93.1	1,148.8	37.4
1976	1,907.3	549.2	96.9	1,223.1	38.0
1977	1,907.9	533.5	94.1	1,243.8	36.5
1978	1,891.9	516.4	91.1	1,255.2	29.2
1979	2,138.1	354.8	62.6	1,707.8	12.9
1980	1,976.0	325.1	57.4	1,576.1	17.4
1981	1,948.9	310.9	54.9	1,561.4	21.7
1982	1,978.4	296.1	52.3	1,601.2	28.9

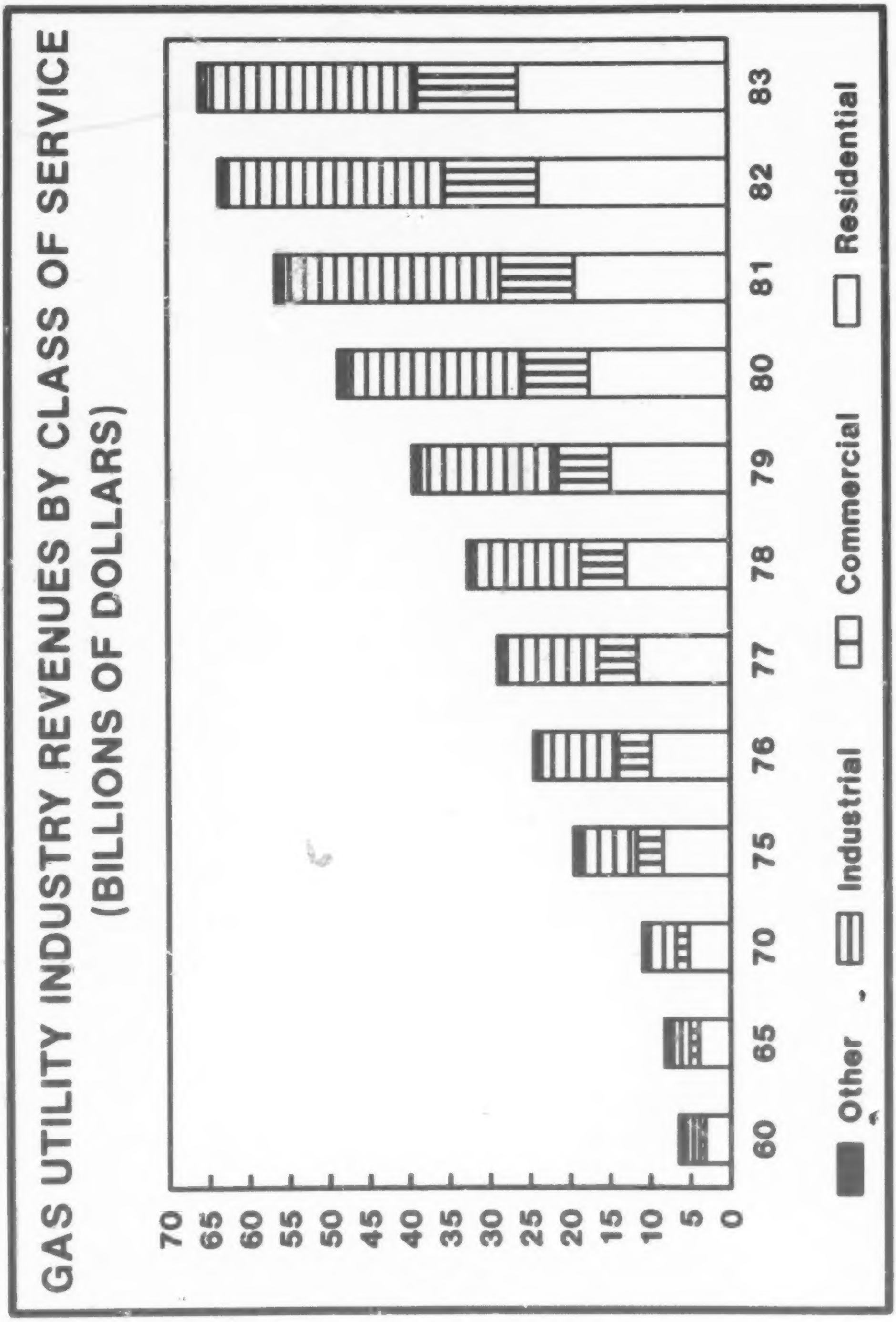
a. Liquefied petroleum gases include ethane, ethylene, propane, propylene, butane, butylene, butane-propane mixture, ethane-propane mixture, and isobutane. The 1979-1982 LPG data may not be directly comparable to the pre-1979 data due to modifications to the LPG sales survey form and an updated sampling frame.

Source: U.S. Department of Energy, Energy Information Administration, *State Energy Data Reports.*

SECTION 7
REVENUES

	1983	% Change 83/82
Gas Utility Industry (Thousands)		
Total	$65,836,669	+ 4.2
Residential	26,173,122	+10.4
Commercial	12,658,718	+ 8.5
Industrial	26,314,873	− 3.3
Industrial Only	19,572,978	+ 1.5
Electric Generation	6,741,895	−14.7
Other	689,956	+ 8.9
Resale	$50,809,735	− 2.9

CHART 7-1



REFERENCE: TABLE 7-1

REVENUES

TABLE 7-1
GAS UTILITY INDUSTRY REVENUES, BY CLASS OF SERVICE, 1960-1983[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	$ 5,617,387	$ 3,177,430	$ 723,448	$ 1,563,285	$153,224
1961	5,992,879	3,376,781	789,202	1,658,276	168,620
1962	6,444,860	3,603,266	874,366	1,795,894	171,334
1963	6,726,815	3,727,868	910,497	1,905,733	182,717
1964	7,132,685	3,894,870	998,386	2,048,527	190,902
1965	7,406,978	4,029,562	1,053,647	2,147,958	175,811
1966	7,869,888	4,195,331	1,135,352	2,334,654	204,551
1967	8,260,739	4,382,837	1,223,897	2,460,885	193,120
1968	8,781,152	4,567,307	1,315,409	2,675,261	223,175
1969	9,479,566	4,883,029	1,459,054	2,918,973	218,510
1970	10,282,611	5,207,335	1,620,446	3,181,206	273,624
1971	11,357,392	5,635,395	1,829,309	3,568,582	324,106
1972	12,465,235	6,094,171	2,063,803	3,943,011	364,250
1973	12,987,272	6,246,988	2,172,460	4,196,714	371,110
1974	15,242,481	6,899,395	2,539,300	5,391,139	412,647
1975	19,101,498	8,445,484	3,302,669	6,745,171	608,174
1976	23,701,211	9,941,013	4,075,009	9,434,751	250,438
1977	28,303,200	11,540,805	4,979,890	11,454,675	327,830
1978	32,149,921	12,938,865	5,695,666	13,138,576	376,814
1979	38,947,143	14,832,950	6,623,766	17,044,820	445,607
1980	48,303,034	17,432,095	8,183,160	22,215,221	472,558
1981	56,109,786	19,180,238	9,285,550	27,123,862	520,136
1982[R]	63,199,775	23,699,899	11,666,099	27,200,015	633,762
1983	65,836,669	26,173,122	12,658,718	26,314,873	689,956

a. Excludes data for Alaska prior to 1961.

b. Prior to 1976 "Other" electric generation (refer to Table 7-10) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R—Revised.

TABLE 7-2
GAS UTILITY INDUSTRY REVENUES, BY QUARTER AND CLASS OF SERVICE, 1960-1983

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	$ 2,033,980	$ 1,304,810	$ 297,337	$ 385,053	$ 46,780
Second	1,278,858	701,603	153,028	389,985	34,242
Third	860,134	358,237	83,575	388,519	29,803
Fourth	1,431,263	803,400	186,039	399,440	42,384
1965					
First	2,688,389	1,667,580	438,864	528,598	53,347
Second	1,713,833	909,991	230,269	535,235	38,338
Third	1,151,283	461,313	121,320	531,538	37,112
Fourth	1,847,096	986,096	261,769	552,222	47,009
1970					
First	3,742,316	2,197,999	687,117	780,927	76,273
Second	2,342,672	1,136,333	346,748	797,906	61,685
Third	1,624,621	578,747	182,163	803,503	60,208
Fourth	2,573,002	1,294,256	404,418	798,870	75,458
1975					
First	6,192,706	3,303,345	1,241,301	1,507,088	140,972
Second	4,449,583	1,972,484	734,977	1,625,673	116,449
Third	3,396,905	987,079	438,873	1,783,838	187,115
Fourth	5,062,304	2,182,576	887,518	1,828,572	163,638
1976					
First	7,640,244	3,890,616	1,531,385	2,147,371	70,872
Second	5,130,081	1,974,961	781,438	2,323,555	50,127
Third	4,192,685	1,109,426	515,383	2,511,518	56,358
Fourth	6,738,200	2,966,010	1,246,803	2,452,307	73,081
1977					
First	9,847,887	5,157,004	2,044,743	2,540,054	106,087
Second	5,898,652	2,118,485	930,741	2,780,625	68,801
Third	5,032,784	1,220,430	664,815	3,080,794	66,745
Fourth	7,523,878	3,044,890	1,339,590	3,053,202	86,197
1978					
First	11,443,834	5,794,334	2,412,856	3,106,186	130,458
Second	6,946,269	2,533,334	1,125,102	3,213,436	74,397
Third	5,548,952	1,309,307	690,271	3,477,345	72,029
Fourth	8,210,868	3,301,893	1,467,438	3,341,609	99,930
1979					
First	13,317,971	6,544,017	2,744,291	3,860,146	169,518
Second	8,158,475	2,823,066	1,259,409	4,003,476	72,524
Third	6,809,065	1,517,166	796,336	4,427,445	68,117
Fourth	10,661,631	3,948,701	1,823,730	4,753,753	135,448
1980					
First	16,402,661	7,290,269	3,245,916	5,690,750	175,726
Second	10,062,858	3,365,770	1,567,485	5,041,319	88,284
Third	8,570,836	1,776,745	1,036,752	5,685,694	71,645
Fourth	13,266,679	4,999,311	2,333,007	5,797,458	136,903
1981					
First	18,801,514	8,306,948	3,745,526	6,558,879	190,161
Second	12,100,242	3,431,510	1,700,873	6,864,699	103,160
Third	10,093,853	1,953,491	1,174,408	6,886,411	79,543
Fourth	15,114,177	5,488,289	2,664,743	6,813,873	147,272
1982^{R}					
First	22,716,502	10,471,317	4,812,798	7,199,859	232,528
Second	13,208,177	4,427,895	2,205,520	6,459,704	115,058
Third	10,788,316	2,372,937	1,455,682	6,868,834	90,863
Fourth	16,486,780	6,427,750	3,192,099	6,671,618	195,313
1983					
First	23,039,000	10,804,224	5,020,783	6,950,292	263,701
Second	14,587,145	5,598,036	2,665,010	6,176,141	147,958
Third	10,920,330	2,597,847	1,544,337	6,682,247	95,899
Fourth	17,290,194	7,173,015	3,428,588	6,506,193	182,398

*Prior to 1976 "Other" electric generation (see Table 7-10) is included in the "Other" class of service. For 1976 and beyond all electric generation is included in the Industrial category.

R – Revised.

REVENUES

TABLE 7-3
GAS UTILITY INDUSTRY REVENUES, BY STATE, 1960-1983[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1982[R]	1983
United States	**$5,617,387**	**$7,406,978**	**$10,282,611**	**$19,101,498**	**$48,303,034**	**$63,199,775**	**$65,836,669**
New England	**212,719**	**274,937**	**377,666**	**700,071**	**1,479,111**	**2,198,494**	**2,262,814**
Connecticut	52,198	66,653	98,178	178,480	366,348	570,263	590,621
Maine	3,608	3,845	4,013	5,983	11,155	19,355	21,096
Massachusetts	131,588	171,040	228,224	425,411	905,414	1,315,223	1,343,982
New Hampshire	5,126	7,336	10,328	17,190	40,569	63,111	69,351
Rhode Island1	18,803	24,599	34,360	65,982	132,190	200,708	210,076
Vermont	1,396	1,464	2,563	7,025	23,435	29,834	27,688
Middle Atlantic	**1,068,271**	**1,342,426**	**1,753,799**	**2,940,846**	**6,603,468**	**8,982,742**	**9,637,766**
New Jersey	192,315	268,622	372,672	594,560	1,408,766	2,047,299	2,166,339
New York	462,574	570,984	720,609	1,248,149	2,663,655	3,730,089	4,079,481
Pennsylvania	413,382	502,822	660,518	1,098,137	2,531,047	3,205,354	3,391,946
East North Central	**1,394,218**	**1,995,933**	**2,888,886**	**5,033,327**	**11,584,314**	**14,486,676**	**15,687,614**
Illinois	393,707	555,763	829,369	1,504,405	3,588,071	4,401,420	4,554,516
Indiana	135,593	218,436	356,270	530,454	1,341,428	1,798,135	1,998,449
Michigan	290,178	434,292	651,318	1,269,106	2,602,792	3,148,746	3,637,285
Ohio	483,987	625,011	789,008	1,254,154	2,875,396	3,598,797	3,863,759
Wisconsin	90,753	162,431	262,921	475,208	1,176,627	1,539,578	1,633,605
West North Central	**540,961**	**701,789**	**982,976**	**1,585,864**	**3,778,158**	**5,169,173**	**5,552,756**
Iowa	96,062	127,197	180,607	311,364	718,370	966,321	1,016,278
Kansas	100,563	125,238	178,128	282,119	815,547	999,672	1,088,845
Minnesota	113,648	156,680	218,398	352,170	750,995	1,154,231	1,248,128
Missouri	144,596	187,021	267,726	406,752	992,492	1,333,666	1,433,934
Nebraska	66,334	77,722	101,542	169,010	356,352	500,984	534,712
North Dakota	5,712	10,566	15,540	31,037	77,168	105,948	112,317
South Dakota	14,046	17,365	21,035	33,412	67,234	108,351	118,542
South Atlantic	**476,032**	**631,577**	**941,975**	**1,538,752**	**4,112,603**	**5,691,751**	**6,136,268**
Delaware	10,102	15,881	22,672	33,229	78,336	127,169	137,954
District of Columbia	26,868	29,602	34,635	54,671	120,837	183,197	211,459
Florida	47,537	73,357	120,609	146,526	611,114	880,645	870,666
Georgia	104,603	127,728	191,637	349,550	950,915	1,261,756	1,410,629
Maryland	87,037	113,321	163,999	272,830	598,324	864,818	912,003
North Carolina	30,669	54,773	106,051	165,659	495,459	667,981	731,107
South Carolina	23,344	42,736	74,858	130,662	354,351	454,262	498,458
Virginia	67,569	89,235	126,840	206,109	482,080	714,884	804,776
West Virginia	78,303	84,944	100,674	179,516	421,187	537,039	559,216
East South Central	**312,695**	**365,717**	**509,350**	**775,705**	**2,306,091**	**2,923,660**	**3,159,064**
Alabama	93,652	113,647	149,962	237,710	698,762	825,535	904,844
Kentucky	80,075	91,310	127.787	199,738	509,455	681,905	741,994
Mississippi	60,254	68,331	100,383	134,730	517,786	640,253	665,907
Tennessee	78,714	92,429	131,218	203,527	580,088	775,967	846,319
West South Central	**642,063**	**771,223**	**1,066,433**	**2,953,148**	**8,951,915**	**11,815,339**	**11,286,573**
Arkansas	58,303	83,252	125,928	175,862	408,334	702,459	707,918
Louisiana	141,741	165,926	219,303	386,609	1,215,482	1,722,596	1,377,645
Oklahoma	88,272	103,263	127,367	328,817	965,728	1,105,965	1,161,861
Texas	353,747	418,782	593,835	2,061,860	6,362,371	8,284,319	8,039,149
Mountain	**246,824**	**325,757**	**456,593**	**920,668**	**2,393,490**	**2,992,721**	**3,061,752**
Arizona	52,255	65,722	95,423	171,773	384,777	500,469	517,968
Colorado	69,462	88,404	120,563	241,901	713,628	916,046	976,738
Idaho	11,555	19,776	28,990	75,818	182,600	182,591	169,073
Montana	22,159	32,003	42,871	82,021	163,917	230,644	207,733
Nevada	8,786	17,544	32,383	79,858	196,982	237,614	224,520
New Mexico	38,804	43,638	56,975	125,617	333,855	390,430	377,408
Utah	32,269	43,572	55,273	101,164	284,725	337,069	400,655
Wyoming	11,534	15,098	24,115	42,516	133,006	197,858	187,657
Pacific	**723,604**	**997,617**	**1,304,933**	**2,653,117**	**7,093,884**	**8,939,219**	**9,052,062**
Alaska	b	4,575	11,678	24,829	38,725	48,124	67,435
California	653,350	875,876	1,117,573	2,193,048	6,076,193	7,790,174	7,935,670
Hawaii	5,003	6,053	7,714	24,125	45,162	48,228	47,352
Oregon	24,806	42,169	65,096	156,703	354,502	401,392	382,323
Washington	40,445	68,944	102,872	254,412	579,302	651,301	619,282

a. Excludes revenues from sales for resale.
b. Not available.
R—Revised.

TABLE 7-4

GAS UTILITY INDUSTRY REVENUES FROM GAS FOR RESALE, BY STATE, 1960-1983*

(Thousands)

Division and State	1960	1965	1970	1975	1980	1982^R	1983
United States	**$3,165,820**	**$4,255,066**	**$6,217,662**	**$11,573,752**	**$37,910,013**	**$52,327,753**	**$50,809,735**
New England	**82,195**	**110,807**	**168,196**	**382,550**	**851,449**	**1,327,092**	**1,330,585**
Connecticut			51,891	125,226	222,022	341,998	329,617
Maine			0	0	0	0	0
Massachusetts			94,590	216,069	529,965	840,325	849,267
New Hampshire			5,319	5,744	17,577	29,697	33,792
Rhode Island			16,396	34,645	81,885	115,072	117,909
Vermont			0	866	0	0	0
Middle Atlantic	**575,739**	**777,878**	**1,057,060**	**1,751,307**	**5,815,523**	**8,588,682**	**8,400,810**
New Jersey			215,211	365,302	1,250,773	1,814,566	2,029,321
New York			371,895	532,961	1,829,091	2,905,624	2,772,402
Pennsylvania			469,951	863,044	2,735,659	3,868,492	3,599,087
East North Central	**699,808**	**1,151,990**	**1,940,570**	**3,596,246**	**10,687,835**	**13,900,699**	**13,834,693**
Illinois			529,299	1,041,633	3,412,478	4,703,911	4,609,519
Indiana			188,301	292,665	988,871	1,481,060	1,482,850
Michigan			278,232	659,019	1,804,423	1,847,799	2,079,014
Ohio			756,382	1,144,706	3,145,106	4,366,290	4,226,919
Wisconsin			188,355	458,223	1,336,957	1,501,639	1,436,391
West North Central	**251,580**	**306,416**	**439,274**	**803,046**	**2,198,971**	**3,342,725**	**3,604,065**
Iowa			105,106	202,852	517,052	624,514	648,174
Kansas			52,935	89,538	265,146	456,578	468,933
Minnesota			100,758	178,677	554,425	813,125	887,086
Missouri			127,783	231,990	628,970	1,083,618	1,171,190
Nebraska			42,394	77,384	174,217	273,267	330,631
North Dakota			2,186	7,695	22,277	26,082	23,663
South Dakota			8,114	14,910	36,884	65,541	74,388
South Atlantic	**487,720**	**597,386**	**748,392**	**1,094,146**	**3,581,501**	**4,684,713**	**5,159,267**
Delaware			680	1,170	2,894	6,033	6,644
District of Columbia			0	0	0	0	0
Florida			24,297	54,786	218,749	277,062	309,716
Georgia			122,268	217,592	709,353	1,021,436	1,173,016
Maryland			81,983	159,003	480,609	684,140	668,290
North Carolina			38,167	96,134	440,145	580,496	571,070
South Carolina			75,078	86,854	313,732	355,101	390,253
Virginia			99,200	177,878	542,737	750,840	1,103,286
West Virginia			306,719	300,729	873,282	1,009,605	936,992
East South Central	**343,356**	**348,642**	**495,572**	**752,002**	**2,695,523**	**3,922,570**	**3,905,249**
Alabama			79,205	140,282	495,051	665,720	721,608
Kentucky			156,277	169,609	528,686	742,888	774,579
Mississippi			92,771	163,268	632,103	975,924	872,944
Tennessee			167,320	278,843	1,039,683	1,538,038	1,536,118
West South Central	**238,630**	**236,059**	**324,987**	**765,273**	**4,322,831**	**6,683,710**	**5,137,316**
Arkansas			6,684	9,328	34,680	41,655	46,402
Louisiana			192,241	354,067	1,383,886	2,347,745	1,946,327
Oklahoma			33,698	91,809	422,361	649,782	561,490
Texas			92,363	310,069	2,481,904	3,644,528	2,583,097
Mountain	**375,843**	**437,321**	**622,947**	**1,349,007**	**4,434,173**	**6,014,761**	**5,778,145**
Arizona			482,102	935,305	3,093,184	4,276,397	4,203,160
Colorado			65,331	163,200	657,917	819,759	862,085
Idaho			24,852	96,221	228,724	246,779	203,505
Montana			3,435	7,289	25,957	25,649	21,893
Nevada			2,950	12,147	36,042	47,396	49,466
New Mexico			20,924	34,447	111,849	180,120	159,691
Utah			4,186	3,113	15,333	32,877	19,302
Wyoming			19,168	97,285	265,167	385,784	259,043
Pacific	**110,949**	**288,567**	**420,664**	**1,070,175**	**3,322,207**	**3,862,801**	**3,659,605**
Alaska			0	0	22,677	0	0
California			249,666	294,546	1,199,764	1,754,508	1,804,634
Hawaii			0	0	0	0	0
Oregon			120,229	598,295	1,665,022	1,635,292	1,416,404
Washington			50,769	177,334	434,744	473,001	438,567

*Includes natural gas only prior to 1970 and state breakdowns not available prior to 1970.
R—Revised.

REVENUES

TABLE 7-5
GAS UTILITY INDUSTRY REVENUES, BY STATE AND CLASS OF SERVICE, 1983

(Thousands)

Division and State	Total	Class of Service Residential	Commercial	Industrial*	Other
United States	**$65,836,669**	**$26,173,122**	**$12,658,718**	**$26,314,873**	**$689,956**
New England	**2,262,814**	**1,178,133**	**591,455**	**477,207**	**16,019**
Connecticut	590,621	299,996	171,632	118,520	473
Maine	21,096	5,323	10,000	5,773	0
Massachusetts	1,343,982	708,425	338,540	283,619	13,398
New Hampshire	69,351	33,459	26,443	8,533	916
Rhode Island	210,076	120,660	38,815	50,601	0
Vermont	27,688	10,270	6,025	10,161	1,232
Middle Atlantic	**9,637,766**	**5,157,283**	**1,952,807**	**2,295,228**	**232,448**
New Jersey	2,166,339	1,090,907	532,607	541,808	1,017
New York	4,079,481	2,458,848	755,322	704,231	161,080
Pennsylvania	3,391,946	1,607,528	664,878	1,049,189	70,351
East North Central	**15,687,614**	**7,649,907**	**3,234,412**	**4,758,244**	**45,051**
Illinois	4,554,516	2,255,023	969,178	1,328,953	1,362
Indiana	1,998,449	780,600	322,028	888,212	7,609
Michigan	3,637,285	1,873,209	858,567	904,992	517
Ohio	3,863.759	2,011,648	788,187	1,029,057	34,867
Wisconsin	1,633,605	729,427	296,452	607,030	696
West North Central	**5,552,756**	**2,486,772**	**1,378,099**	**1,666,729**	**21,156**
Iowa	1,016,278	422,990	239,309	352,743	1,236
Kansas	1,088,845	374,957	185,009	519,370	9,509
Minnesota	1,248,128	576,717	283,290	386,250	1,871
Missouri	1,433,934	764,821	442,534	218,341	8,238
Nebraska	534,712	233,935	138,268	162,222	287
North Dakota	112,317	53,950	52,709	5,647	11
South Dakota	118,542	59,402	36,980	22,156	4
South Atlantic	**6,136,268**	**2,147,010**	**1,367,454**	**2,585,820**	**35,984**
Delaware	137,954	40,978	22,039	70,599	4,338
District of Columbia	211,459	99,485	111,974	0	0
Florida	870,666	105,724	149,077	602,095	13,770
Georgia	1,410,629	544,652	296,188	567,104	2,685
Maryland	912,003	473,328	201,057	237,322	296
North Carolina	731,107	205,877	144,572	380,313	345
South Carolina	498,458	117,795	91,743	287,192	1,728
Virginia	804,776	313,544	236,166	242,336	12,730
West Virginia	559,216	245,627	114,638	198,859	92
East South Central	**3,159,064**	**1,009,399**	**570,443**	**1,513,263**	**65,959**
Alabama	904,844	301,313	133,440	465,219	4,872
Kentucky	741,994	333,584	148,179	234,094	26,137
Mississippi	665,907	162,990	76,664	400,902	25,351
Tennessee	846,319	211,512	212,160	413,048	9,599
West South Central	**11,286,573**	**2,212,272**	**1,136,439**	**7,748,873**	**188,989**
Arkansas	707,918	188,711	114,924	403,534	749
Louisiana	1,377,645	396,628	145,161	776,293	59,563
Oklahoma	1,161,861	338,411	177,481	644,291	1,678
Texas	8,039,149	1,288,522	698,873	5,924,755	126.999
Mountain	**3,061,752**	**1,288,323**	**785,351**	**922,866**	**65,212**
Arizona	517,968	192,232	111,472	204,795	9,469
Colorado	976,738	463,202	318,942	192,742	1,852
Idaho	169,073	48,213	49,085	71,775	0
Montana	207,733	79,010	58,194	61,197	9,332
Nevada	224,520	78,219	67,948	76,544	1,809
New Mexico	377,408	148,150	69,609	117,476	42,173
Utah	400,655	209,252	64,449	126,781	173
Wyoming	187,657	70,045	45,652	71,556	404
Pacific	**9,052,062**	**3,044,023**	**1,642,258**	**4,346,643**	**19,138**
Alaska	67,435	24,306	7,689	35,440	0
California	7,935,670	2,706,619	1,354,980	3,857,639	16,432
Hawaii	47,352	11,391	7,936	28,025	0
Oregon	382,323	121,463	98,239	162,621	0
Washington	619,282	180,244	173,414	262,918	2,706

*Includes Electric Generation – See Table 7-10 for breakout.

TABLE 7-6

GAS UTILITY INDUSTRY FIRM AND INTERRUPTIBLE GAS REVENUES, BY STATE, 1983

(Thousands)

	Commercial			Industrial		
Division and State	Total	Firm	Interruptible	Total	Firm	Interruptible
United States	**$12,658,718**	**$11,890,413**	**$768,305**	**$26,314,873**	**$14,063,674**	**$12,251,199**
New England	**591,455**	**539,082**	**52,373**	**477,207**	**191,321**	**285,886**
Connecticut	171,632	134,718	36,914	118,520	74,104	44,416
Maine	10,000	10,000	0	5,773	4,845	928
Massachusetts	338,540	323,690	14,850	283,619	90,311	193,308
New Hampshire	26,443	26,443	0	8,533	3,489	5,044
Rhode Island	38,815	38,206	609	50,601	18,335	32,266
Vermont	6,025	6,025	0	10,161	237	9,924
Middle Atlantic	**1,952,807**	**1,891,800**	**61,007**	**2,295,228**	**1,663,740**	**631,488**
New Jersey	532,607	496,924	35,683	541,808	238,784	303,024
New York	755,322	743,161	12,161	704,231	511,226	193,005
Pennsylvania	664,878	651,715	13,163	1,049,189	913,730	135,459
East North Central	**3,234,412**	**3,165,875**	**68,537**	**4,758,244**	**3,795,538**	**962,706**
Illinois	969,178	966,879	2,299	1,328,953	1,078,058	250,895
Indiana	322,028	302,614	19,414	888,212	708,947	179,265
Michigan	858,567	851,089	7,478	904,992	759,029	145,963
Ohio	788,187	781,706	6,481	1,029,057	964,549	64,508
Wisconsin	296,452	263,587	32,865	607,030	284,955	322,075
West North Central	**1,378,099**	**1,150,087**	**228,012**	**1,666,729**	**679,627**	**987,102**
Iowa	239,309	202,476	36,833	352,743	229,162	123,581
Kansas	185,009	127,749	57,260	519,370	172,150	347,220
Minnesota	283,290	246,441	36,849	386,250	131,087	255,163
Missouri	442,534	368,070	74,464	218,341	61,922	156,419
Nebraska	138,268	132,544	5,724	162,222	80,497	81,725
North Dakota	52,709	38,812	13,897	5,647	106	5,541
South Dakota	36,980	33,995	2,985	22,156	4,703	17,453
South Atlantic	**1,367,454**	**1,220,614**	**146,840**	**2,585,820**	**1,237,756**	**1,348,064**
Delaware	22,039	21,133	906	70,599	54,278	16,321
District of Columbia	111,974	86,749	25,225	0	0	0
Florida	149,077	139,248	9,829	602,095	66,120	535,975
Georgia	296,188	295,052	1,136	567,104	78,800	488,304
Maryland	201,057	155,305	45,752	237,322	169,871	67,451
North Carolina	144,572	144,572	0	380,313	351,571	28,742
South Carolina	91,743	73,646	18,097	287,192	136,147	151,045
Virginia	236,166	193,763	42,403	242,336	183,053	59,283
West Virginia	114,638	111,146	3,492	198,859	197,916	943
East South Central	**570,443**	**530,361**	**40,082**	**1,513,263**	**928,167**	**585,096**
Alabama	133,440	117,237	16,203	465,219	247,629	217,590
Kentucky	148,179	138,718	9,461	234,094	109,815	124,279
Mississippi	76,664	76,658	6	400,902	366,022	34,880
Tennessee	212,160	197,748	14,412	413,048	204,701	208,347
West South Central	**1,136,439**	**1,118,574**	**17,865**	**7,748,873**	**4,714,647**	**3,034,226**
Arkansas	114,924	114,398	526	403,534	260,509	143,025
Louisiana	145,161	144,531	630	776,293	536,805	239,488
Oklahoma	177,481	163,951	13,530	644,291	368,931	275,360
Texas	698,873	695,694	3,179	5,924,755	3,548,402	2,376,353
Mountain	**785,351**	**780,413**	**4,938**	**922,866**	**508,591**	**414,275**
Arizona	111,472	111,472	0	204,795	203,934	861
Colorado	318,942	317,497	1,445	192,742	29,883	162,859
Idaho	49,085	49,085	0	71,775	71,335	440
Montana	58,194	56,724	1,470	61,197	5,130	56,067
Nevada	67,948	67,948	0	76,544	76,544	0
New Mexico	69,609	67,761	1,848	117,476	77,566	39,910
Utah	64,449	64,449	0	126,781	26,374	100,407
Wyoming	45,652	45,477	175	71,556	17,825	53,731
Pacific	**1,642,258**	**1,493,607**	**148,651**	**4,346,643**	**344,287**	**4,002,356**
Alaska	7,689	7,689	0	35,440	9,257	26,183
California	1,354,980	1,253,042	101,938	3,857,639	103,738	3,753,901
Hawaii	7,936	7,936	0	28,025	28,025	0
Oregon	98,239	95,165	3,074	162,621	76,233	86,388
Washington	173,414	129,775	43,639	262,918	127,034	135,884

TABLE 7-7
REVENUES FROM GAS UTILITY INDUSTRY SALES, BY TYPE OF INDUSTRY CLASSIFICATION, 1960-1983

(Thousands)

Industry Classification	1960	1965	1970	1975	1980	1982^R	1983
Agriculture, forestry and fisheries	$ 3,447	$ 4,553	$ 13,373	$ 41,816	$ 137,952	$ 265,825	$ 151,737
Petroleum and natural gas production	13,023	23,092	29,116	67,556	90,824	113,221	171,360
Other mining	10,738	18,697	18,744	44,664	214,732	214,693	158,727
Electric services[a]	366,946	461,037	750,879	1,482,516	6,750,928	9,229,651	8,093,317
Other transportation, communications and public utilities	6,212	12,867	36,820	99,971	276,149	304,871	360,545
Hotels, rooming houses, and camps	5,225	12,317	34,089	85,216	97,974	149,258	167,228
Laundries, cleaning and dyeing	1,495	7,969	12,508	30,095	76,146	126,732	157,599
Other services	11,615	25,434	82,737	274,992	1,025,544	1,637,713	1,881,167
Other non-manufacturing	13,826	32,472	105,186	228,982	571,193	1,155,834	1,349,024
Ordnance	5,362	5,938	14,216	b	b	b	b
Food and kindred products	57,331	88,419	140,016	352,172	991,498	1,408,859	1,317,633
Textile products, apparel, fabrics, etc.	7,459	16,613	32,563	58,468	191,077	252,207	289,474
Furniture, lumber and other wood products	7,452	18,713	25,097	65,210	166,086	206,600	284,627
Paper and allied products	54,020	80,392	137,086	258,795	760,852	924,858	894,993
Carbon black	2,435	9,198	12,613	26,646	65,844	54,240	17,963
Chemicals and allied products (except carbon black)	154,556	208,820	303,261	821,397	2,158,091	2,867,608	2,334,915
Petroleum refining	87,605	88,023	167,312	502,402	1,333,883	1,292,800	1,036,997
Rubber and miscellaneous plastic products	5,454	12,314	20,483	47,694	164,015	231,529	220,497
Glass products	59,693	73,844	92,362	183,233	524,302	614,314	641,836
Cement	47,540	52,129	81,001	130,210	135,038	60,388	49,481
Clay products, pottery, etc.	49,764	60,873	63,707	111,670	250,795	239,043	246,489
Other stone products and miscellaneous	11,335	26,502	61,841	103,389	277,604	257,490	254,832
Primary iron and steel industries	149,646	232,470	313,595	568,959	1,533,627	1,573,273	1,413,846
Primary non-ferrous industries	58,181	88,218	89,949	268,145	768,053	768,883	798,211
Fabricated metal products, machinery equipment and supplies	55,360	93,760	162,290	319,800	729,513	954,961	945,658
Transportation equipment	30,767	53,093	92,514	194,678	286,168	348,277	349,068
Other manufacturing	13,053	23,883	45,777	129,238	377,918	404,198	431,566
Public Administration	c	c	c	74,956	227,343	368,739	494,850
Unclassified	e	e	e	e	e	6,890,472	6,805,961
Total (Sum)[a]	**$1,289,540**	**$1,831,640**	**$2,939,135**	**$ 6,572,870**	**$20,183,149**	**$32,916,537**	**$31,319,601**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$1,514,995**	**$2,123,185**	**$3,038,083**	**$ 9,473,153**	**$23,675,795**	**$29,582,308**	**$28,805,953**
Total Gas Utility Industry Commercial, Industrial and "Other" revenues[d]	**$1,716,509**	**$2,323,769**	**$3,454,830**	**$10,628,839**	**$30,870,939**	**$39,499,876**	**$39,663,547**

a. Includes the following "revenues" from transfers of gas for electric generation not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department to the gas department of combination gas and electric companies. "Revenues" in thousands of dollars are: 1960-73,887; 1965-72,919; 1970-92,443; 1975-293,936; 1980-1,173,364; 1982-1,321,944; and 1983-1,351,422. Also includes revenues from some companies with electric services sales but not reporting this table.

b. Classification eliminated.

c. New classification in 1972.

d. Includes Industrial and "Other" sales only prior to 1971.

e. New classification in 1982.

R—Revised.

TABLE 7-8
GAS UTILITY INDUSTRY REVENUES BY TYPE OF INDUSTRY CLASSIFICATION AND BY DIVISION, 1983

(Thousands)

Industry Classification	Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
Agriculture, forestry and fisheries	$ 151,737	$ 2,090	$ 3,1991	$ 27,005	$ 23,685	$ 1,578	$ 5,509	$ 12,877	$ 8,517	$ 67,277
Petroleum and natural gas production	171,360	1	14	33,868	61,568	0	4,024	21,882	26,606	23,397
Other mining	158,727	322	282	19,101	3,262	34,004	371	38,476	42,391	20,518
Electric services*	8,093,317	113,831	974,122	108,187	93,574	387,781	136,550	3,606,389	233,052	2,439,831
Other transportation, communication, and public utilities	360,545	30,788	23,823	84,830	87,371	7,972	6,817	25,293	17,641	76,010
Hotels, rooming houses, and camps	167,228	5,363	15,629	46,404	15,955	6,266	4,079	2,679	4,503	66,350
Laundries, cleaning and dyeing	157,599	4,824	13,543	41,324	5,951	7,655	6,738	1,293	823	75,448
Other services	1,881,167	54,317	194,661	754,647	182,996	82,793	70,492	47,092	54,171	439,998
Other non-manufacturing	1,349,024	109,903	206,538	515,723	91,476	34,766	42,684	7,012	20,420	320,502
Food and kindred products	1,317,633	16,221	132,274	415,478	208,804	95,336	44,731	23,942	64,448	316,399
Textile products, apparel, fabrics, etc.	289,474	17,868	28,553	14,182	844	165,776	33,317	2,616	673	25,645
Furniture, lumber, and other wood products	284,627	250	10,406	28,602	6,231	16,261	82,916	72,586	3,222	64,153
Paper and allied products	894,993	16,833	103,655	225,419	33,597	109,864	148,906	49,140	38,195	169,384
Carbon black	17,963	228	0	1,840	0	2,325	870	10,693	0	2,007
Chemicals and allied products (except carbon black)	2,334,915	13,103	126,833	413,492	230,304	308,188	167,298	913,707	33,102	128,888
Petroleum refining	1,036,997	0	36,355	55,436	33,829	29,492	20,590	431,000	31,282	399,013
Rubber and miscellaneous plastic products	220,497	4,539	26,170	70,678	14,835	20,517	30,524	31,987	238	21,009
Glass products	641,836	16,196	176,729	146,084	21,594	91,610	44,598	32,070	0	112,955
Cement	49,481	216	83	4,084	6,961	11,545	5,118	2,490	4,544	14,440
Clay products, pottery, etc.	246,489	3,108	19,370	26,659	35,184	90,956	19,833	5,651	15,991	29,737
Other stone products and miscellaneous	254,832	5,981	40,033	35,430	32,487	67,741	6,024	916	9,864	56,356
Primary iron and steel industries	1,413,846	11,868	228,174	871,494	68,057	82,572	63,855	5,345	3,682	78,799
Primary non-ferrous industries	798,211	10,410	110,402	264,305	35,076	25,582	85,939	69,572	112,394	84,531
Fabricated metal products, machinery equipment and supplies	945,658	35,321	142,808	451,700	64,942	43,859	49,595	15,193	7,195	135,045
Transportation equipment	349,068	4,050	41,342	182,266	34,861	15,187	15,022	4,279	2,695	49,366
Other manufacturing	431,566	17,377	91,304	137,768	21,304	27,678	23,370	17,366	14,517	80,882
Public administration	494,850	12,247	70,729	72,731	40,905	93,067	32,481	28,252	35,065	109,373
Unclassified	6,805,961	206,175	1,859,656	1,081,000	938,382	1,145,706	243,867	453,387	602,042	275,746
Total (Sum)*	**$31,319,601**	**$713,430**	**$4,676,687**	**$6,129,737**	**$2,394,035**	**$3,006,077**	**$1,396,118**	**$5,933,185**	**$1,387,273**	**$5,683,059**
Total Commercial, Industrial and "Other" revenues of co.'s reporting this table	**$28,805,953**	**$ 676,932**	**$3,820,948**	**$6,102,279**	**$2,378,444**	**$2,956,705**	**$1,392,998**	**$4,570,821**	**$1,309,838**	**$5,596,988**
Total Gas Utility Industry Commercial, Industrial and "Other" revenues	**$39,663,547**	**$1,084,681**	**$4,480,483**	**$8,037,707**	**$3,065,984**	**$3,989,258**	**$2,149,665**	**$9,074,301**	**$1,773,429**	**$6,008,039**

*Includes the following "revenues" from transfers of gas for electric generation not included in Total Commercial, Industrial and "Other" revenues of companies reporting this table or in Total Gas Utility Industry revenues. Such "revenues" represent credits by the electric department of combination gas and electric companies.

Total U.S.	New England	Middle Atlantic	East North Central	West North Central	South Atlantic	East South Central	West South Central	Mountain	Pacific
$1,351,422	$0	$855,739	$16,285	$12,887	$38,722	$3,120	$363,732	$60,937	$0

TABLE 7-9
GAS UTILITY INDUSTRY REVENUES FROM GAS USED FOR ELECTRIC GENERATION, 1960-1983[a]

(Thousands)

	Revenue					
	Industrial[b]					
Year	Firm	Interruptible	Other	Total Revenue	Credits[c]	Total Revenue and Credits
1960	$228,474		$ 64,585	$ 293,059	$ 73,887	$ 366,946
1961	247,811		75,437	323,248	74,988	398,236
1962	264,637		86,810	351,447	75,747	427,194
1963	282,932		96,808	379,740	73,517	453,257
1964	304,974		107,193	412,167	77,919	490,086
1965	293,999		94,119	388,118	72,919	461,037
1966	325,605		114,051	439,656	73,073	512,729
1967	346,912		96,643	443,555	75,298	518,853
1968	380,995		117,159	498,154	80,816	578,970
1969	426,325		112,454	538,779	71,747	610,526
1970	520,882		137,553	658,435	92,443	750,878
1971	$ 237,111	$ 335,539	160,035	732,685	201,213	933,898
1972	277,344	294,885	201,865	774,094	193,655	967,749
1973	185,106	309,653	214,419	709,178	197,418	906,596
1974	271,516	395,889	225,124	892,529	269,148	1,161,677
1975	352,660	473,951	361,969	1,188,580	293,936	1,482,516
1976	594,784	1,075,885	d	1,670,669	315,935	1,986,604
1977	779,919	1,535,133	d	2,315,052	379,274	2,694,326
1978	953,406	1,452,434	d	2,405,840	330,572	2,736,412
1979	1,424,871	2.063,626	d	3,488,497	721,948	4,210,445
1980	2,417,592	3,159,972	d	5,577,564	1,173,364	6,750,928
1981	3,037,233	4,273,885	d	7,311,118	1,213,728	8,524,846
1982[R]	3,075,361	4,832,346	d	7,907,707	1,321,944	9,229,651
1983	2,488,379	4,253,516	d	6,741,895	1,351,422	8,093,317

a. Excludes revenues from direct sales by producers to straight electric utilities.
b. No breakdown available prior to 1971.
c. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.
d. Other now included with Industrial to conform to the definition of industrial services.
R – Revised.

TABLE 7-10
GAS UTILITY INDUSTRY REVENUES, GAS USED FOR ELECTRIC GENERATION, BY STATE, 1983[a]

(Thousands)

	Industrial Revenue				
Division and State	Firm	Interruptible	Total	Credits[b]	Total Revenue and Credits
United States	**$2,488,379**	**$4,253,516**	**$6,741,895**	**$1,351,422**	**$8,093,317**
New England	**0**	**113,831**	**113,831**	**0**	**113,831**
Connecticut	0	0	0	0	0
Maine	0	0	0	0	0
Massachusetts	0	104,778	104,778	0	104,778
New Hampshire	0	0	0	0	0
Rhode Island	0	9,053	9,053	0	9,053
Vermont	0	0	0	0	0
Middle Atlantic	**3,167**	**115,216**	**118,383**	**855,739**	**974,122**
New Jersey	0	113,974	113,974	295,901	409,875
New York	1,437	0	1,437	559,718	561,155
Pennsylvania	1,730	1,242	2,972	120	3,092
East North Central	**56,165**	**35,737**	**91,902**	**16,285**	**108,187**
Illinois	42,013	14,405	56,418	4,613	61,031
Indiana	901	0	901	11,306	12,207
Michigan	10,016	4,554	14,570	0	14,570
Ohio	2,751	1,957	4,708	366	5,074
Wisconsin	484	14,821	15,305	0	15,305
West North Central	**6,178**	**74,509**	**80,687**	**12,887**	**93,574**
Iowa	1,087	9,295	10,382	2,318	12,700
Kansas	2,242	53,569	55,811	3,638	59,449
Minnesota	105	6,939	7,044	4,683	11,727
Missouri	79	3,304	3,383	2,209	5,592
Nebraska	2,665	1,349	4,014	2	4,016
North Dakota	0	53	53	0	53
South Dakota	0	0	0	37	37
South Atlantic	**3,284**	**345,775**	**349,059**	**38,722**	**387,781**
Delaware	0	0	0	16,878	16,878
District of Columbia	0	0	0	0	0
Florida	1,904	336,248	338,152	0	338,152
Georgia	0	6,730	6,730	0	6,730
Maryland	0	0	0	6,393	6,393
North Carolina	102	2,266	2,368	0	2,368
South Carolina	1,278	0	1,278	1,690	2,968
Virginia	0	0	0	13,761	13,761
West Virginia	0	531	531	0	531
East South Central	**110,140**	**23,290**	**133,430**	**3,120**	**136,550**
Alabama	79	19	98	0	98
Kentucky	0	0	0	2,071	2,071
Mississippi	110,061	23,271	133,332	480	133,812
Tennessee	0	0	0	569	569
West South Central	**2,194,653**	**1,048,004**	**3,242,657**	**363,732**	**3,606,389**
Arkansas	0	99,431	99,431	0	99,431
Louisiana	85,459	66,975	152,434	89,571	242,005
Oklahoma	75,836	21,770	97,606	132,430	230,036
Texas	2,033,358	859,828	2,893,186	141,731	3,034,917
Mountain	**114,555**	**57,560**	**172,115**	**60,937**	**233,052**
Arizona	55,404	618	56,022	38,445	94,467
Colorado	19	17,523	17,542	1,177	18,719
Idaho	0	0	0	0	0
Montana	0	146	146	313	459
Nevada	49,151	0	49,151	21,002	70,153
New Mexico	9,981	39,273	49,254	0	49,254
Utah	0	0	0	0	0
Wyoming	0	0	0	0	0
Pacific	**237**	**2,439,594**	**2,439,831**	**0**	**2,439,831**
Alaska	0	26,183	26,183	0	26,183
California	0	2,413,354	2,413,354	0	2,413,354
Hawaii	0	0	0	0	0
Oregon	0	57	57	0	57
Washington	237	0	237	0	237

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a. Excludes revenues from direct sales by producers to electric utilities.

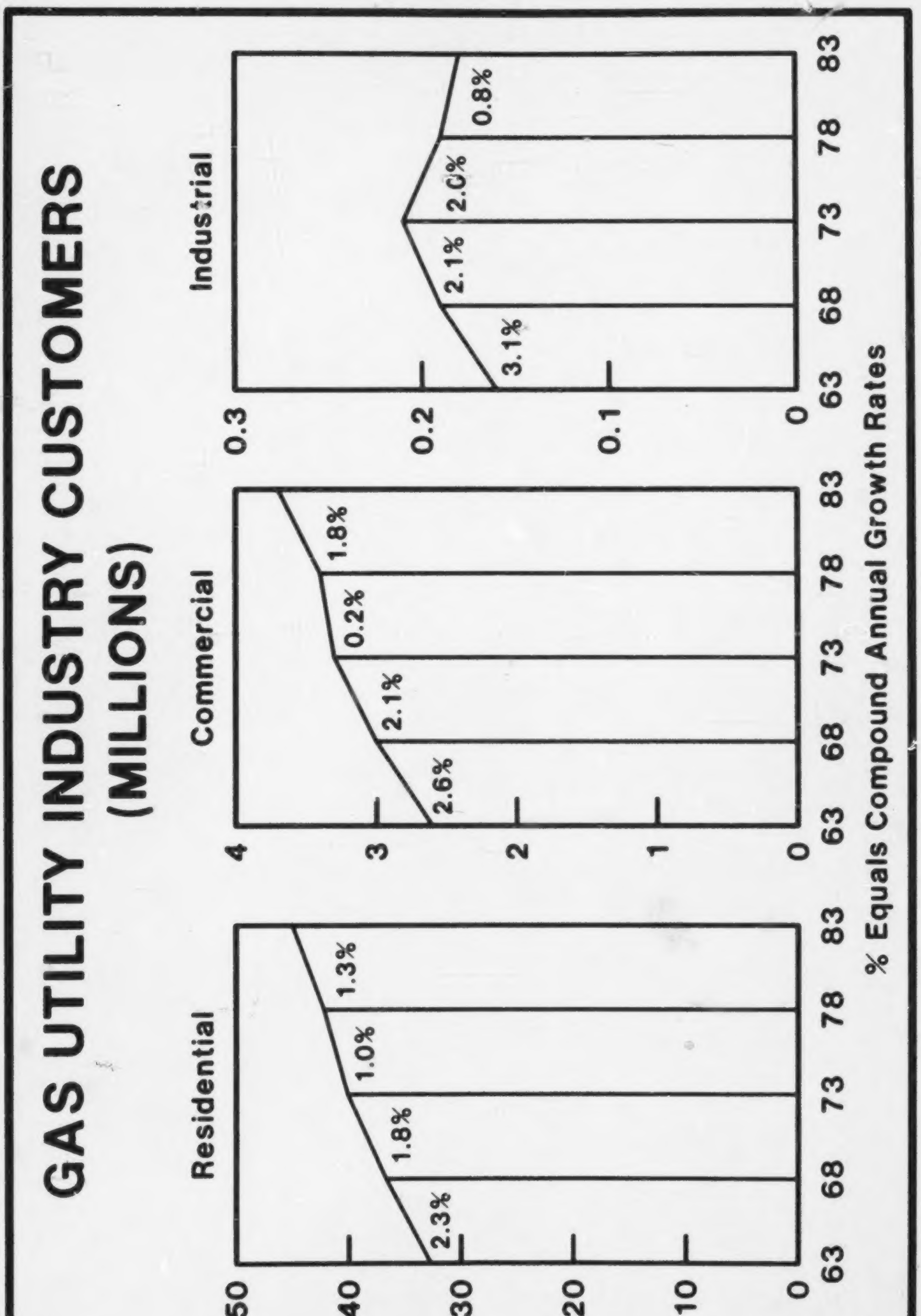
b. Represents "Revenues" from transfers of gas for electric generation. Such "Revenues" are credits by the electric department to the gas department of combination gas and electric companies.

SECTION 8
CUSTOMERS

	Average Customers	
	1983	% Change 83/82
Gas Utility Industry		
(Thousands)		
Total	48,801.1	+ 0.8
Residential	44,893.8	+ 0.8
Commercial	3,678.3	+ 1.3
Industrial	182.2	− 2.1
Other	46.8	+ 3.1

Note: Totals in this section may not add due to independent rounding.

CHART 8-1



GAS UTILITY INDUSTRY CUSTOMERS (MILLIONS)

REFERENCE: TABLE 8-1

TABLE 8-1
GAS UTILITY INDUSTRY CUSTOMERS, BY CLASS OF SERVICE, YEARLY AVERAGES, 1960-1983[a]

(Thousands)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	33,053.8	30,417.5	2,458.3	140.6	37.4
1961	33,830.5	31,118.2	2,528.9	146.7	36.7
1962	34,683.4	31,893.0	2,597.9	155.9	36.6
1963	35,551.0	32,710.8	2,639.6	161.7	38.9
1964	36,463.3	33,551.2	2,712.2	159.4	40.5
1965	37,337.5	34,340.8	2,789.7	166.2	40.8
1966	38,228.4	35,141.8	2,868.2	173.9	44.5
1967	39,076.5	35,915.1	2,933.6	181.2	46.6
1968	39,930.0	36,691.1	3,003.6	188.1	47.2
1969	40,854.0	37,538.3	3,073.8	192.7	49.2
1970	41,482.1	38,097.0	3,130.9	199.1	55.1
1971	42,241.9	38,788.7	3,199.0	204.7	49.5
1972	42,954.8	39,428.0	3,263.6	209.2	54.1
1973	43,711.2	40,115.5	3,331.4	209.1	55.2
1974	44,267.2	40,626.7	3,392.0	193.8	54.7
1975	44,554.5	40,950.3	3,366.9	183.5	53.8
1976	44,941.4	41,337.6	3,371.5	179.7	52.6
1977	45,274.0	41,682.4	3,371.0	173.3	47.3
1978	45,788.9	42,183.2	3,369.8[c]	189.2[c]	46.7
1979	46,478.3	42,821.3	3,422.8	189.4	44.8
1980	47,225.1	43,489.4	3,499.9	187.2	48.6
1981	47,947.5	44,149.3	3,564.5	187.2	46.5
1982[R]	48,414.9	44,552.3	3,631.1	186.1	45.4
1983	48,801.1	44,893.8	3,678.3	182.2	46.8

a. Excludes data for Alaska prior to 1961.

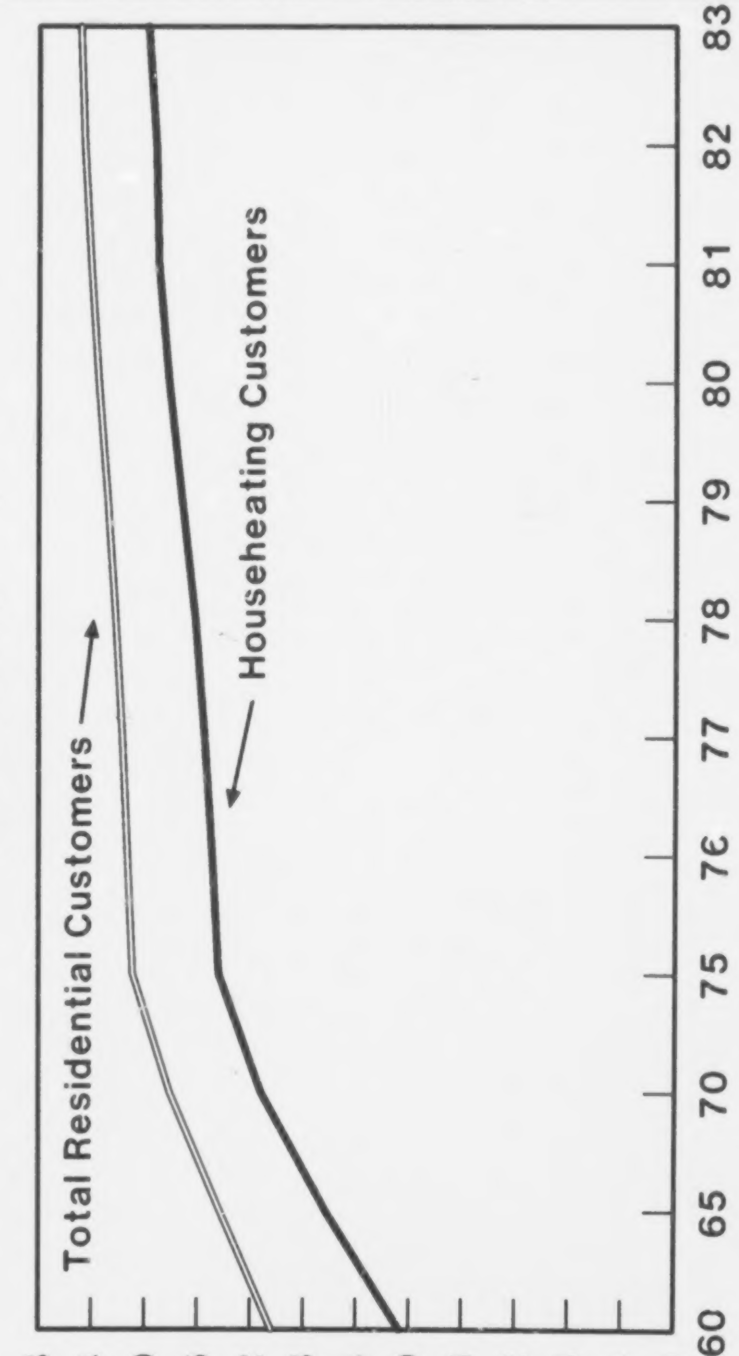
b. Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.

c. Reclassification of customers from commercial to industrial.

R—Revised.

CHART 8-2

GAS UTILITY HOUSEHEATING CUSTOMERS
(MILLIONS)



REFERENCE: TABLE 8-6

CUSTOMERS

TABLE 8-2
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY QUARTER, 1960-1983

(Thousands)

Year and Quarter	Total	Residential	Commercial	Industrial*	Other*
1960					
First	32,882	30,220	2,486	139	37
Second	32,685	30,098	2,409	141	37
Third	32,638	30,099	2,363	140	36
Fourth	33,508	30,802	2,524	141	41
1965					
First	37,174	34,156	2,814	163	41
Second	36,963	34,014	2,743	165	41
Third	36,932	34,021	2,704	167	40
Fourth	37,967	34,886	2,870	169	42
1970					
First	41,491	38,063	3,175	199	54
Second	41,419	38,058	3,109	199	53
Third	41,080	37,773	3,054	198	55
Fourth	41,939	38,494	3,186	201	58
1975					
First	44,762	41,099	3,406	194	63
Second	44,386	40,806	3,348	181	51
Third	44,233	40,686	3,322	177	48
Fourth	44,839	41,210	3,393	182	54
1976					
First	45,088	41,437	3,417	181	53
Second	44,924	41,311	3,380	180	53
Third	44,628	41,084	3,313	179	52
Fourth	45,128	41,519	3,377	179	53
1977					
First	45,689	42,005	3,454	175	55
Second	45,047	41,476	3,347	173	51
Third	44,633	41,140	3,282	170	41
Fourth	45,725	42,108	3,400	175	42
1978					
First	45,931	42,285	3,410	190	47
Second	45,761	42,149	3,376	190	47
Third	45,468	41,918	3,316	188	46
Fourth	45,996	42,382	3,378	189	47
1979					
First	46,553	42,869	3,449	190	45
Second	46,410	42,754	3,422	190	45
Third	46,242	42,635	3,375	189	44
Fourth	46,708	43,027	3,446	189	45
1980					
First	47,394	43,605	3,552	188	49
Second	47,190	43,443	3,511	187	49
Third	46,873	43,210	3,429	186	48
Fourth	47,444	43,699	3,509	187	49
1981					
First	48,159	44,315	3,609	188	47
Second	47,942	44,140	3,567	188	47
Third	47,573	43,839	3,503	186	45
Fourth	48,116	44,303	3,580	186	47
1982^{R}					
First	48,723	44,803	3,687	188	45
Second	48,429	44,558	3,638	187	46
Third	47,990	44,197	3,564	184	45
Fourth	48,517	44,650	3,636	185	46
1983					
First	49,091	45,127	3,733	184	47
Second	48,815	44,900	3,685	183	47
Third	48,350	44,512	3,611	181	46
Fourth	48,948	45,035	3,685	181	47

*Prior to 1976, "Other" electric generation customers included in the "Other" class of service. For 1976 and beyond all electric generation customers included in the Industrial category.

R– Revised.

TABLE 8–3
GAS UTILITY INDUSTRY AVERAGE CUSTOMERS, BY STATE, 1960-1983[a]

(Thousands)

Division and State	1960	1965	1970	1975	1980	1982[R]	1983
United States	33,053.8	37,337.5	41,482.1	44,554.5	47,225.1	48,414.9	48,801.1
New England	1,622.6	1,641.6	1,692.3	1,692.5	1,734.6	1,775.3	1,787.2
Connecticut	376.7	378.8	393.7	392.5	405.0	417.1	421.3
Maine	33.4	28.5	23.4	18.1	15.0	15.3	15.4
Massachusetts	1,002.3	1,024.7	1,055.3	1,055.4	1,079.3	1,098.6	1,102.8
New Hampshire	37.4	40.2	44.1	45.4	50.9	52.6	53.6
Rhode Island	155.9	154.5	161.4	164.6	168.9	175.9	177.9
Vermont	16.9	14.9	14.4	16.6	15.4	15.9	16.3
Middle Atlantic	7,607.6	7,919.6	8,192.1	8,230.3	8,111.4	8,203.1	8,248.8
New Jersey	1,504.9	1,640.6	1,763.1	1,815.1	1,849.1	1,869.5	1,894.2
New York	3,953.5	4,076.4	4,125.6	4,102.5	3,925.5	3,963.1	3,978.7
Pennsylvania	2,149.2	2,202.5	2,303.4	2,312.7	2,336.8	2,370.4	2,375.9
East North Central	7,318.9	8,400.3	9,508.7	10,253.1	10,777.8	10,941.2	19,966.3
Illinois	2,279.4	2,634.6	2,938.4	3,134.2	3,304.2	3,326.6	3,326.9
Indiana	780.0	933.8	1,084.4	1,187.7	1,241.1	1,282.4	1,289.6
Michigan	1,502.1	1,732.9	2,018.5	2,234.5	2,443.3	2,496.7	2,503.7
Ohio	2,208.4	2,424.2	2,644.5	2,757.8	2,746.5	2,766.8	2,768.0
Wisconsin	549.0	674.8	822.9	939.0	1,042.7	1,068.7	1,078.2
West North Central	2,655.5	3,074.7	3,499.9	3,820.4	4,126.5	4,251.8	4,287.6
Iowa	440.4	541.9	642.1	691.6	745.4	758.5	761.6
Kansas	532.8	586.5	643.1	669.8	723.0	759.2	766.5
Minnesota	476.1	560.9	640.9	726.8	809.4	855.6	878.8
Missouri	816.8	933.4	1,068.2	1,167.1	1,218.4	1,224.0	1,222.7
Nebraska	288.4	330.2	367.7	400.5	442.4	456.0	457.5
North Dakota	39.4	47.4	55.2	71.3	85.7	91.2	92.6
South Dakota	61.6	74.4	82.6	93.1	102.4	107.2	107.8
South Atlantic	2,507.3	2,995.6	3,528.9	3,861.9	4,042.2	4,193.8	4,258.2
Delaware	64.2	73.3	81.4	82.8	81.5	83.7	83.1
District of Columbia	177.3	172.4	162.8	155.4	148.6	147.0	146.1
Florida	244.1	294.2	370.1	391.8	433.0	450.2	456.3
Georgia	534.9	670.9	804.4	912.3	1,025.9	1,082.7	1,113.8
Maryland	558.7	639.6	712.5	774.6	773.5	788.0	792.4
North Carolina	121.6	193.2	285.2	338.0	366.7	394.7	416.4
South Carolina	87.0	154.7	233.3	283.1	296.2	311.6	312.1
Virginia	361.8	432.7	497.3	528.4	523.2	542.5	547.0
West Virginia	357.2	364.6	381.9	395.4	393.6	393.5	391.0
East South Central	1,470.9	1,699.6	1,947.2	2,139.2	2,211.6	2,234.3	2,252.2
Alabama	453.3	522.1	588.8	637.1	679.0	673.5	683.3
Kentucky	432.9	506.0	583.0	631.3	626.7	642.7	642.0
Mississippi	271.2	310.6	347.3	380.3	396.7	397.5	399.6
Tennessee	313.5	360.9	428.1	490.5	509.3	520.5	527.3
West South Central	3,840.3	4,329.9	4,758.5	5,092.0	5,509.8	5,710.3	5,763.6
Arkansas	299.1	362.1	419.3	461.4	489.9	512.1	520.5
Louisiana	701.2	804.7	871.3	935.9	1,002.3	1,017.1	1,006.8
Oklahoma	602.8	648.7	697.6	740.5	816.4	861.9	887.4
Texas	2,237.2	2,514.4	2,770.3	2,954.2	3,201.2	3,319.2	3,348.8
Mountain	1,267.8	1,587.3	1,892.9	2,311.6	2,700.3	2,841.1	2,888.1
Arizona	300.3	374.1	447.5	554.1	579.1	588.3	590.3
Colorado	388.4	485.7	586.5	688.8	850.1	907.6	935.0
Idaho	27.0	52.2	79.0	107.5	108.6	111.5	112.2
Montana	118.6	137.6	150.8	173.4	182.7	186.4	187.4
Nevada	24.6	47.8	72.4	112.2	168.2	181.0	185.1
New Mexico	176.6	203.8	231.8	278.9	327.6	344.2	349.3
Utah	166.5	211.9	243.8	297.4	361.0	393.1	400.3
Wyoming	65.8	74.2	81.1	99.2	122.9	129.0	128.4
Pacific	4,762.9	5,688.9	6,461.6	7,153.5	8,010.8	8,263.9	8,349.1
Alaska	b	6.1	17.4	29.1	42.1	50.3	57.4
California	4,506.6	5,311.1	5,919.4	6,495.1	7,286.3	7,510.8	7,585.6
Hawaii	39.8	36.2	36.1	34.8	33.2	32.7	32.8
Oregon	105.6	146.2	197.5	248.2	275.3	286.5	288.6
Washington	110.9	189.3	291.2	346.3	373.9	383.6	384.7

a. Excludes customers purchasing for resale.
b. Not available.
R – Revised.

CUSTOMERS

TABLE 8-4
GAS UTILITY INDUSTRY CUSTOMERS, BY STATE AND CLASS OF SERVICE, AVERAGES, 1983

(Thousands)

Division and State	Total	Class of Service Residential	Commercial	Industrial	Other
United States	**48,801.1**	**44,893.8**	**3,678.3**	**182.2**	**46.8**
New England	**1,787.2**	**1,641.2**	**133.0**	**9.0**	**4.0**
Connecticut	421.3	384.0	34.8	2.4	0.1
Maine	15.4	12.5	2.8	0.1	0.0
Massachusetts	1,102.8	1,019.2	75.2	5.1	3.3
New Hampshire	53.6	46.6	6.6	0.1	0.2
Rhode Island	177.9	164.6	12.0	1.3	0.0
Vermont	16.3	14.3	1.5	a	0.5
Middle Atlantic	**8,248.8**	**7,643.7**	**571.8**	**22.8**	**10.5**
New Jersey	1,894.2	1,708.3	179.3	6.6	a
New York	3,978.7	3,717.7	242.1	10.2	8.7
Pennsylvania	2,375.9	2,217.7	150.4	6.0	1.8
East North Central	**10,966.3**	**10,118.0**	**797.2**	**47.2**	**3.9**
Illinois	3,326.9	3,059.7	248.0	18.4	0.8
Indiana	1,289.6	1,179.5	104.9	4.7	0.5
Michigan	2,503.7	2,329.9	163.9	9.8	0.0
Ohio	2,768.0	2,563.6	195.3	6.5	2.5
Wisconsin	1,078.2	985.2	85.1	7.8	a
West North Central	**4,287.6**	**3,869.4**	**403.2**	**13.2**	**1.8**
Iowa	761.6	678.4	81.1	1.8	0.3
Kansas	766.5	690.6	70.7	4.9	0.3
Minnesota	878.8	798.1	76.4	4.0	0.3
Missouri	1,222.7	1,128.2	93.1	0.7	0.7
Nebraska	457.5	396.8	59.2	1.3	0.2
North Dakota	92.6	81.5	11.1	a	a
South Dakota	107.8	95.7	11.6	0.4	a
South Atlantic	**4,258.2**	**3,896.4**	**342.2**	**14.2**	**5.4**
Delaware	83.1	77.5	5.3	0.2	0.1
District of Columbia	146.1	131.0	15.0	0.0	0.0
Florida	456.3	416.9	38.1	0.5	0.9
Georgia	1,113.8	1,029.2	79.0	2.3	3.3
Maryland	792.4	736.2	51.1	5.0	0.1
North Carolina	416.4	368.2	45.9	2.2	0.1
South Carolina	312.1	280.1	30.4	1.2	0.4
Virginia	547.0	498.3	45.7	2.4	0.6
West Virginia	391.0	358.9	31.8	0.3	a
East South Central	**2,252.2**	**2,031.8**	**203.9**	**6.5**	**10.1**
Alabama	683.3	631.7	47.3	2.0	2.4
Kentucky	642.0	583.0	56.4	1.3	1.4
Mississippi	399.6	360.1	36.5	1.1	1.9
Tennessee	527.3	457.0	63.8	2.1	4.4
West South Central	**5,763.6**	**5,256.9**	**475.9**	**23.3**	**7.5**
Arkansas	520.5	460.0	58.7	1.7	0.1
Louisiana	1,006.8	936.3	67.1	2.3	1.2
Oklahoma	887.4	801.8	82.2	3.1	0.3
Texas	3,348.8	3,058.8	267.9	16.2	5.9
Mountain	**2,888.1**	**2,609.7**	**268.1**	**7.1**	**3.2**
Arizona	590.3	543.4	44.6	1.8	0.5
Colorado	935.0	835.2	98.2	1.5	0.1
Idaho	112.2	96.5	15.6	0.2	0.0
Montana	187.4	166.4	20.5	0.5	0.1
Nevada	185.1	169.9	15.2	0.1	a
New Mexico	349.3	313.0	31.5	2.4	2.5
Utah	400.3	371.7	28.1	0.5	a
Wyoming	128.4	113.7	14.5	0.2	a
Pacific	**8,349.1**	**7,826.8**	**483.0**	**38.9**	**0.5**
Alaska	57.4	50.9	5.7	0.8	0.0
California	7,585.6	7,157.1	395.3	32.8	0.4
Hawaii	32.8	28.9	2.2	1.7	0.0
Oregon	288.6	252.5	35.5	0.6	0.0
Washington	384.7	337.5	44.3	2.9	a

a. Less than .05 thousand.

TABLE 8-5

GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS, BY STATE YEARLY AVERAGES FOR 1970-1983

(Thousands)

Division and State	1970	1975	1980	1982^R	1983 Number	1983 Saturation*
United States	**31,208.7**	**34,371.4**	**38,162.6**	**39,284.8**	**39,799.2**	**88.7**
New England	**778.8**	**857.1**	**1,008.8**	**1,090.4**	**1,080.1**	**65.8**
Connecticut	181.0	195.8	216.3	245.5	240.5	62.6
Maine	5.7	4.8	6.7	9.4	9.5	76.1
Massachusetts	443.3	531.5	635.6	674.2	664.9	65.2
New Hampshire	24.2	28.0	36.0	37.0	36.7	78.7
Rhode Island	116.0	86.3	103.0	112.7	116.4	70.7
Vermont	8.6	10.7	11.2	11.6	12.1	84.4
Middle Atlantic	**3,827.2**	**4,127.7**	**4,514.6**	**4,749.8**	**4,841.5**	**63.3**
New Jersey	713.7	793.4	942.6	1,030.1	1,066.1	62.4
New York	1,536.7	1,686.2	1,797.0	1,872.5	1,901.0	51.1
Pennsylvania	1,576.8	1,648.1	1,775.0	1,847.2	1,874.4	84.5
East North Central	**7,527.9**	**8,432.0**	**9,166.2**	**9,471.4**	**9,502.6**	**93.9**
Illinois	2,107.4	2,390.9	2,616.6	2,693.2	2,708.9	88.5
Indiana	813.0	947.6	1,049.9	1,127.1	1,134.9	96.2
Michigan	1,647.3	1,901.2	2,162.0	2,238.4	2,256.1	96.8
Ohio	2,379.2	2,482.0	2,507.3	2,534.6	2,515.8	98.1
Wisconsin	581.0	710.3	830.4	878.1	886.9	90.0
West North Central	**2,915.5**	**3,260.7**	**3,589.9**	**3,732.9**	**3,750.8**	**96.9**
Iowa	515.8	572.9	632.9	657.3	652.8	96.2
Kansas	563.4	595.4	649.6	100.0	685.2	99.2
Minnesota	513.1	598.3	690.9	740.0	756.0	94.7
Missouri	915.6	1,022.8	1,082.8	1,096.1	1,098.1	97.3
Nebraska	298.4	336.2	375.1	388.0	388.5	97.9
North Dakota	41.8	56.5	70.6	75.2	76.8	94.3
South Dakota	67.4	78.6	88.0	93.2	93.4	97.6
South Atlantic	**2,599.2**	**2,969.9**	**3,312.7**	**3,490.4**	**3,525.1**	**90.5**
Delaware	42.5	46.6	51.9	52.0	51.7	66.7
District of Columbia	83.2	86.1	92.0	95.2	96.4	73.6
Florida	247.9	261.7	368.3	404.0	406.9	97.6
Georgia	718.9	810.7	946.0	1,001.1	1,003.8	97.5
Maryland	443.3	528.8	550.2	572.3	580.3	78.8
North Carolina	209.6	274.4	288.2	340.9	351.6	95.5
South Carolina	179.7	226.9	257.1	244.9	252.1	90.0
Virginia	339.0	378.3	402.8	426.2	429.1	86.1
West Virginia	335.1	356.4	356.2	353.8	353.2	98.4
East South Central	**1,695.1**	**1,868.0**	**1,965.4**	**1,982.1**	**1,971.5**	**97.0**
Alabama	539.2	579.9	625.3	619.1	619.2	98.0
Kentucky	490.1	538.0	562.3	577.6	551.1	94.5
Mississippi	311.0	341.8	356.1	357.6	355.5	98.7
Tennessee	354.8	408.3	421.7	427.8	445.7	97.5
West South Central	**4,278.3**	**4,496.0**	**4,997.8**	**4,991.6**	**5,152.5**	**98.0**
Arkansas	371.0	405.8	433.9	452.9	458.7	99.7
Louisiana	737.3	859.3	931.3	936.1	929.1	99.2
Oklahoma	628.3	665.7	731.8	760.4	799.6	99.7
Texas	2,541.7	2,565.2	2,900.8	2,842.2	2,965.1	96.9
Mountain	**1,646.2**	**2,040.4**	**2,406.4**	**2,546.1**	**2,570.0**	**98.5**
Arizona	390.0	492.4	509.1	520.2	517.4	95.2
Colorado	508.7	610.9	759.1	810.0	835.2	100.0
Idaho	65.9	91.4	82.2	93.9	94.8	98.2
Montana	126.9	147.1	161.8	165.0	165.9	99.7
Nevada	65.9	100.7	155.3	173.2	162.8	95.8
New Mexico	203.4	239.4	291.6	308.0	313.0	100.0
Utah	217.6	272.6	338.3	361.7	367.7	98.9
Wyoming	67.8	85.9	109.0	114.1	113.2	99.6
Pacific	**5,940.5**	**6,319.6**	**7,200.8**	**7,230.1**	**7,405.1**	**94.6**
Alaska	14.4	24.0	36.2	43.8	50.9	100.0
California	5,506.9	5,794.5	6,618.4	6,619.2	6,789.8	94.9
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	166.3	206.7	224.9	230.7	237.5	94.0
Washington	252.9	294.4	321.3	336.4	326.9	96.9

*Percentages refer to proportion of residential gas customers using gas for heating.

Source: A.G.A. *Gas Househeating Survey*. Data represent average number of customers developed from number of year-end customers as shown in survey.

R– Revised.

TABLE 8-6

GAS UTILITY INDUSTRY HOUSEHEATING CUSTOMERS AND HEATING SATURATIONS[a] BY CENSUS DIVISION, 1960-1983 YEARLY AVERAGES[b]

(Thousands)

	1960		1965		1970		1975	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**20,739**	**68.2**	**26,297**	**76.1**	**31,209**	**81.9**	**34,372**	**84.1**
New England	386	25.3	583	36.8	779	48.6	857	54.8
Middle Atlantic	2,475	35.1	3,212	43.2	3,827	50.3	4,128	54.1
East North Central	4,369	64.3	6,091	77.6	7,528	85.6	8,432	89.4
West North Central	1,999	82.6	2,485	88.6	2,916	92.2	3,261	94.5
South Atlantic	1,533	66.7	2,073	74.9	2,599	80.9	2,970	84.2
East South Central	1,161	87.4	1,422	92.4	1,695	96.4	1,868	96.5
West South Central	3,457	99.7	3,900	99.5	4,278	99.0	4,496	97.1
Mountain	1,081	95.5	1,366	96.4	1,646	97.3	2,040	98.0
Pacific	4,278	97.3	5,165	97.3	5,941	98.3	6,320	94.6

	1980		1981		1982[R]		1983	
Census Division	Customers	Percent	Customers	Percent	Customers	Percent	Customers	Percent
United States	**38,163**	**87.8**	**38,979**	**88.3**	**39,285**	**88.2**	**39,799**	**88.7**
New England	1,009	63.1	1,069	65.9	1,090	66.8	1,080	65.8
Middle Atlantic	4,515	60.0	4,658	61.6	4,750	62.5	4,842	63.3
East North Central	9,166	92.1	9,392	93.3	9,471	93.8	9,503	93.9
West North Central	3,590	96.3	3,685	96.7	3,733	97.3	3,751	96.9
South Atlantic	3,313	89.4	3,433	90.6	3,491	90.9	3,525	90.5
East South Central	1,965	98.5	1,969	98.0	1,982	98.3	1,976	97.0
West South Central	4,998	99.5	5,068	99.4	4,992	95.9	5,153	98.0
Mountain	2,406	98.2	2,503	98.5	2,546	98.8	2,570	98.5
Pacific	7,201	95.8	7,202	94.1	7,230	93.4	7,405	94.6

a. Percentages refer to proportion of total residential customers, within specified areas, using gas for heating.
b. Excludes data for Alaska prior to 1961 .
R – Revised
Source: A.G.A. *Gas Househeating Survey.* Data represent average number of customers developed from number of year-end customers as shown in survey.

SECTION 9
PRICES

	1983	% Change 83/82
Gas Utility Industry		
($/MMBtu)		
Total	$ 5.12	+14.9
Residential	5.88	+18.4
Commercial	5.51	+16.7
Industrial	4.41	+10.1
Other	4.92	+14.3
Wellhead ($/Mcf)*	2.62	+ 7.8
City Gate	4.05	+12.6
Electric	20.50	+ 8.5
Number 2 Fuel Oil	7.92	− 9.0

*Percentage change based on preliminary data for both years.

Prices in this section, unless cited as a source other than A.G.A., were developed using the following methodology. Total revenues for a specific segment and time period are divided by the corresponding total sales for that specific segment and time period. For example, the residential price (average 1983) for the state of New York was obtained by dividing total 1983 residential revenues in New York by the total 1983 residential sales in New York. Likewise, the residential price (average 1983) for the total United States was obtained by dividing total 1983 residential revenues in the United States by the total 1983 residential sales in the United States.

TABLE 9-1
AVERAGE WELLHEAD PRICES OF NATURAL GAS, BY STATE, 1960-1982*

(¢/MCF)

Division and State	1960	1965	1970	1975	1980	1981	1982
United States	**14.0¢**	**15.6¢**	**17.1¢**	**44.5¢**	**158.8¢**	**198.2¢**	**245.7¢**
New England	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Middle Atlantic	**31.8**	**26.9**	**28.0**	**68.0**	**210.2**	**236.9**	**291.0**
New Jersey	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New York	30.9	30.8	30.3	74.0	194.9	266.7	374.8
Pennsylvania	31.8	26.7	27.9	67.5	212.7	233.0	280.0
East North Central	**21.0**	**23.1**	**26.4**	**66.6**	**217.6**	**252.9**	**296.3**
Illinois	12.5	11.7	15.7	70.0	190.0	247.1	261.9
Indiana	18.8	23.6	23.7	39.0	135.0	208.4	154.5
Michigan	21.4	25.1	26.7	63.4	235.5	286.3	319.0
Ohio	23.5	23.6	27.1	70.6	197.7	217.0	271.4
Wisconsin	0.0	0.0	0.0	0.0	0.0	0.0	0.0
West North Central	**11.8**	**13.4**	**14.1**	**17.5**	**79.5**	**98.8**	**161.1**
Iowa	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Kansas	11.7	13.3	14.0	17.2	77.2	92.0	150.6
Minnesota	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Missouri	25.0	24.5	24.5	34.0	0.0	0.0	0.0
Nebraska	17.5	14.6	17.1	54.1	82.9	145.1	199.0
North Dakota	11.4	16.0	16.4	23.0	118.8	194.2	230.0
South Dakota	0.0	0.0	0.0	0.0	NA	275.5	308.1
South Atlantic	**26.2**	**23.4**	**25.5**	**50.4**	**274.2**	**291.5**	**310.1**
Delaware	0.0	0.0	0.0	0.0	0.0	0.0	0.0
District of Columbia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Florida	16.2	12.9	0.0	97.3	173.0	271.0	246.1
Georgia	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Maryland	26.6	25.2	24.9	27.0	45.6	48.2	77.8
North Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Carolina	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Virginia	27.1	29.9	30.8	51.5	285.0	214.5	368.6
West Virginia	26.2	23.5	25.4	36.9	300.0	300.0	320.0
East South Central	**20.5**	**19.3**	**20.7**	**59.3**	**223.2**	**317.1**	**346.2**
Alabama	7.3	12.7	13.9	87.0	318.6	477.0	344.4
Kentucky	24.4	23.6	24.6	54.0	89.3[a]	100.8	151.8
Mississippi	18.8	17.3	18.4	49.6	231.7	321.0	391.0
Tennessee	17.5	19.0	19.9	43.0	176.0	254.9	300.0
West South Central	**13.1**	**14.6**	**16.7**	**45.6**	**156.9**	**195.6**	**238.8**
Arkansas	11.9	15.6	16.3	34.7	69.6	181.0	212.7
Louisiana	17.1	18.2	19.3	42.3	160.7[a]	207.0	259.8
Oklahoma	11.9	13.8	15.6	32.0	150.7	188.5	274.0
Texas	11.3	12.9	14.4	51.9	156.5[b]	186.8	216.9[b]
Mountain	**11.2**	**12.1**	**14.3**	**38.2**	**172.6**	**219.5**	**271.2**
Arizona	0.0	12.1	17.1	28.0	NA	NA	259.0
Colorado	11.9	12.9	14.7	48.0	147.0	197.0	316.5
Idaho	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Montana	7.1	8.2	10.3	43.3	145.4	191.0	214.5
Nevada	0.0	0.0	0.0	0.0	0.0	0.0	0.0
New Mexico	10.7	11.8	14.3	40.5	175.8	212.9	246.6
Utah	18.0	12.5	15.1	48.0	111.7	110.0	306.4
Wyoming	12.0	13.5	14.7	33.7	192.0	277.0	322.3
Pacific	**26.7**	**30.8**	**31.0**	**56.7**	**210.7**	**181.1**	**176.0**
Alaska	12.2	24.8	24.6	30.2	73.2	62.0	63.0
California	26.7	30.9	32.1	70.0	217.0	257.0	308.6
Hawaii	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Oregon	0.0	0.0	0.0	0.0	240.0	260.0	333.3
Washington	0.0	0.0	0.0	0.0	0.0	0.0	0.0

a. Value data is for the period beginning June 1, 1980 and ending May 31, 1981.

b. Weighted average value obtained from separate onshore and OCS average value calculations.

NA—Not available.

*Reflects price at first point of transfer, representing sales made by producers. The 1983 U.S. average wellhead price of natural gas is estimated to be 262.0¢.

R—Revised.

Source: U.S. Department of Energy, Energy Information Administration, *Natural Gas Annual*, 1982.

PRICES

TABLE 9-2
GAS UTILITY INDUSTRY AVERAGE PRICES BY CLASS OF SERVICE, 1960-1983*

($/MMBtu)

Year	Total	Residential	Commercial	Industrial	Other
1960	$0.60	$1.00	$0.79	$0.33	$0.33
1961	0.62	1.02	0.80	0.35	0.34
1962	0.63	1.02	0.80	0.35	0.34
1963	0.62	1.02	0.80	0.35	0.35
1964	0.62	1.01	0.78	0.35	0.36
1965	0.62	1.01	0.78	0.35	0.36
1966	0.61	1.00	0.78	0.35	0.36
1967	0.61	1.00	0.78	0.35	0.36
1968	0.61	1.00	0.77	0.35	0.36
1969	0.62	1.01	0.78	0.36	0.39
1970	0.64	1.06	0.81	0.38	0.41
1971	0.68	1.12	0.85	0.41	0.38
1972	0.73	1.19	0.91	0.45	0.41
1973	0.79	1.25	0.95	0.50	0.44
1974	0.95	1.42	1.11	0.66	0.60
1975	1.29	1.69	1.38	0.99	0.94
1976	1.60	1.98	1.68	1.31	1.36
1977	1.97	2.33	2.07	1.69	1.74
1978	2.18	2.53	2.28	1.90	1.79
1979	2.52	2.92	2.66	2.23	1.94
1980	3.13	3.61	3.34	2.79	2.67
1981	3.65	4.16	3.91	3.29	3.46
1982[R]	4.46	4.97	4.72	4.00	4.30
1983	5.12	5.88	5.51	4.41	4.92

*Excludes data for Alaska prior to 1961.
R—Revised.

TABLE 9-3
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE, 1960-1983[a]

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1982R	1983
United States	**$0.60**	**$0.62**	**$0.64**	**$1.29**	**$3.13**	**$4.46**	**$5.12**
New England	**1.77**	**1.60**	**1.60**	**2.87**	**4.96**	**6.78**	**7.08**
Connecticut	1.66	1.51	1.60	2.93	4.99	7.21	7.78
Maine	2.78	2.96	2.23	3.04	5.15	7.12	8.72
Massachusetts	1.82	1.63	1.64	2.91	4.96	6.62	6.78
New Hampshire	1.71	1.71	1.54	2.21	4.25	6.06	7.21
Rhode Island	1.58	1.46	1.36	2.82	5.00	7.07	7.33
Vermont	3.49	2.93	2.22	2.06	5.66	6.46	6.00
Middle Atlantic	**1.07**	**1.04**	**1.06**	**1.97**	**3.98**	**5.47**	**6.36**
New Jersey	1.53	1.38	1.26	2.31	4.36	6.14	6.43
New York	1.29	1.20	1.21	2.14	4.43	5.73	6.92
Pennsylvania	0.81	0.81	0.87	1.68	3.45	4.88	5.76
East North Central	**0.74**	**0.73**	**0.74**	**1.34**	**3.17**	**4.34**	**5.18**
Illinois	0.77	0.74	0.73	1.35	3.26	4.19	4.92
Indiana	0.66	0.63	0.71	1.16	2.82	3.86	4.85
Michigan	0.81	0.80	0.78	1.43	3.06	4.35	5.20
Ohio	0.68	0.70	0.73	1.35	3.24	4.56	5.56
Wisconsin	1.02	0.82	0.80	1.31	3.42	4.95	5.46
West North Central	**0.52**	**0.53**	**0.56**	**1.00**	**2.68**	**4.23**	**4.90**
Iowa	0.61	0.62	0.62	1.04	2.81	4.18	4.76
Kansas	0.33	0.36	0.39	0.69	2.24	3.65	4.21
Minnesota	0.71	0.68	0.67	1.19	2.81	4.58	5.30
Missouri	0.56	0.56	0.54	1.18	3.04	4.69	5.56
Nebraska	0.52	0.51	0.51	0.90	2.34	3.78	4.36
North Dakota	0.67	0.68	0.82	1.26	3.57	4.36	5.30
South Dakota	0.58	0.65	0.71	1.05	2.81	4.32	5.09
South Atlantic	**0.73**	**0.72**	**0.72**	**1.39**	**3.28**	**4.63**	**5.32**
Delaware	1.14	0.96	0.93	1.73	3.46	5.32	5.69
District of Columbia	1.45	1.36	1.28	2.21	4.38	6.36	7.60
Florida	0.52	0.51	0.55	1.15	2.63	3.76	3.90
Georgia	0.55	0.61	0.57	1.12	3.17	4.32	5.03
Maryland	1.32	1.17	1.13	1.97	[illegible]	5.58	6.76
North Carolina	0.74	0.74	0.70	1.58	3.46	4.74	5.50
South Carolina	0.57	0.58	0.62	1.10	3.16	4.54	5.14
Virginia	1.05	0.98	0.95	1.78	3.58	5.10	6.03
West Virginia	0.60	0.59	0.64	1.24	3.27	4.73	5.58
East South Central	**0.52**	**0.50**	**0.51**	**1.03**	**2.85**	**4.12**	**4.77**
Alabama	0.52	0.51	0.52	1.04	3.11	4.31	4.92
Kentucky	0.63	0.64	0.67	1.11	2.90	4.35	4.98
Mississippi	0.41	0.39	0.38	0.95	2.71	3.86	4.58
Tennessee	0.54	0.50	0.53	1.00	2.69	3.97	4.58
West South Central	**0.29**	**0.32**	**0.35**	**0.99**	**2.53**	**3.76**	**4.15**
Arkansas	0.33	0.36	0.37	0.80	1.97	3.35	3.87
Louisiana	0.26	0.28	0.30	0.85	2.36	3.73	4.32
Oklahoma	0.35	0.40	0.46	0.79	2.05	3.10	3.60
Texas	0.28	0.31	0.35	1.10	2.72	3.92	4.24
Mountain	**0.43**	**0.46**	**0.49**	**0.99**	**2.84**	**4.22**	**4.76**
Arizona	0.47	0.52	0.57	1.19	2.82	4.43	4.87
Colorado	0.43	0.45	0.48	0.90	2.95	4.57	5.13
Idaho	0.53	0.57	0.67	1.48	4.03	5.30	5.59
Montana	0.43	0.47	0.54	1.03	3.03	4.66	4.84
Nevada	0.62	0.59	0.58	1.30	3.17	4.80	5.53
New Mexico	0.34	0.41	0.42	0.88	2.66	3.92	4.40
Utah	0.44	0.43	0.46	0.85	2.34	3.06	3.86
Wyoming	0.36	0.38	0.34	0.70	2.45	3.74	4.32
Pacific	**0.59**	**0.57**	**0.58**	**1.31**	**3.65**	**4.81**	**5.39**
Alaska	b	0.88	0.70	0.81	1.20	1.32	1.80
California	0.59	0.55	0.56	1.26	3.57	4.76	5.42
Hawaii	3.13	3.03	2.76	6.78	13.01	14.97	14.98
Oregon	0.78	0.71	0.74	1.80	4.64	5.91	5.93
Washington	0.59	0.60	0.65	1.55	4.33	5.76	5.69

a. Excludes sales for resale and revenues from sales for resale.

b. Not available.

R—Revised.

TABLE 9-4
GAS UTILITY INDUSTRY RESALE PRICES BY STATE, 1970-1983[a]

($/MMBtu)

Division and State	1970	1975	1979	1980	1981	1982R	1983
United States	**$0.35**	**$0.80**	**$1.81**	**$2.41**	**$2.89**	**$3.60**	**$4.05**
New England	**0.62**	**1.41**	**2.25**	**2.84**	**3.41**	**4.33**	**4.35**
Connecticut	0.63	1.51	2.31	2.91	3.49	4.37	4.39
Maine	b	b	b	b	b	b	b
Massachusetts	0.61	1.35	2.23	2.81	3.40	4.31	4.34
New Hampshire	0.62	0.99	2.14	2.59	3.26	4.18	4.76
Rhode Island	0.59	1.59	2.26	2.94	3.37	4.41	4.24
Vermont	b	0.67	b	b	b	b	b
Middle Atlantic	**0.43**	**0.93**	**1.86**	**2.49**	**2.96**	**3.71**	**4.05**
New Jersey	0.44	0.99	1.78	2.45	2.95	3.66	3.66
New York	0.46	0.93	1.98	2.59	3.19	3.77	4.13
Pennsylvania	0.41	0.90	1.82	2.45	2.82	3.70	4.24
East North Central	**0.37**	**0.79**	**1.80**	**2.41**	**2.87**	**3.42**	**4.07**
Illinois	0.31	0.68	1.64	2.12	2.57	3.00	3.53
Indiana	0.37	0.72	1.72	2.14	2.63	3.24	4.23
Michigan	0.40	0.87	2.03	2.93	3.36	3.93	4.42
Ohio	0.39	0.84	1.78	2.39	2.79	3.61	4.44
Wisconsin	0.41	0.95	2.18	3.07	3.69	4.14	4.46
West North Central	**0.34**	**0.70**	**1.69**	**2.11**	**2.72**	**3.51**	**4.11**
Iowa	0.39	0.78	1.93	2.48	2.80	3.38	3.94
Kansas	0.26	0.53	1.29	1.78	2.42	3.29	3.77
Minnesota	0.37	0.75	1.91	2.32	2.96	3.73	4.37
Missouri	0.32	0.69	1.58	1.86	2.63	3.54	4.12
Nebraska	0.34	0.69	1.62	2.02	2.70	3.38	4.28
North Dakota	0.42	1.40	2.78	4.55	5.05	4.66	4.38
South Dakota	0.37	0.72	1.74	2.11	2.83	3.68	4.35
South Atlantic	**0.39**	**0.80**	**1.85**	**2.44**	**3.02**	**3.73**	**4.44**
Delaware	0.62	0.98	1.83	2.41	3.04	3.77	4.43
District of Columbia	b	b	b	b	b	b	b
Florida	0.38	0.66	1.62	2.31	2.60	3.31	3.38
Georgia	0.37	0.69	1.88	2.30	2.97	3.66	4.56
Maryland	0.45	1.05	1.89	2.61	3.00	4.04	4.85
North Carolina	0.24	0.81	1.89	2.66	3.46	3.68	4.16
South Carolina	0.45	0.68	1.81	2.32	3.11	3.68	4.04
Virginia	0.42	0.98	1.91	2.60	3.19	3.77	4.63
West Virginia	0.36	0.76	1.83	2.35	2.85	3.75	4.63
East South Central	**0.32**	**0.64**	**1.58**	**2.15**	**2.71**	**3.50**	**3.93**
Alabama	0.33	0.64	1.82	2.25	2.90	3.61	3.89
Kentucky	0.37	0.71	1.66	2.23	2.70	3.47	4.19
Mississippi	0.27	0.62	1.34	2.19	2.78	3.64	4.08
Tennessee	0.29	0.61	1.59	2.04	2.60	3.38	3.75
West South Central	**0.21**	**0.63**	**1.66**	**2.15**	**2.74**	**3.46**	**3.70**
Arkansas	0.30	0.58	1.29	2.17	2.17	2.89	3.31
Louisiana	0.22	0.62	1.70	2.09	2.63	3.45	3.78
Oklahoma	0.20	0.62	1.52	2.05	2.72	3.28	3.57
Texas	0.20	0.64	1.67	2.21	2.83	3.51	3.68
Mountain	**0.32**	**0.71**	**1.74**	**2.37**	**2.63**	**3.53**	**3.88**
Arizona	0.33	0.70	1.74	2.26	2.42	3.43	3.84
Colorado	0.26	0.58	1.46	2.51	3.28	3.82	4.14
Idaho	0.34	1.14	2.33	3.43	3.65	4.21	4.01
Montana	0.46	0.95	1.99	3.42	4.27	4.42	4.47
Nevada	0.51	1.28	2.81	3.64	4.01	4.65	5.38
New Mexico	0.20	0.48	1.59	1.91	2.31	2.71	3.07
Utah	0.20	0.42	1.20	1.83	3.38	4.44	4.71
Wyoming	0.23	0.97	2.17	3.03	3.55	4.01	3.97
Pacific	**0.34**	**1.10**	**2.39**	**3.39**	**3.73**	**4.39**	**4.33**
Alaska	b	b	b	0.83	b	b	b
California	0.37	0.85	2.08	2.75	3.05	3.85	4.24
Hawaii	b	b	b	b	b	b	b
Oregon	0.30	1.27	2.65	4.29	4.69	5.06	4.56
Washington	0.32	1.11	2.34	3.40	3.67	4.24	4.01

a. Resale prices approximate city-gate prices.
b. No sales reported.
R—Revised.

TABLE 9-5
AVERAGE GAS PRICES OF WELLHEAD, CITY GATE, AND END-USER LEVEL
1960-1983

Year	Wellhead ($/Mcf*)	City Gate ($/MMBtu*)	Cost to the Ultimate Customer ($/MMBtu*)
1960	$0.140	$0.342	$0.605
1961	0.151	0.357	0.618
1962	0.155	0.360	0.630
1963	0.158	0.351	0.625
1964	0.154	0.342	0.615
1965	0.156	0.339	0.618
1966	0.157	0.333	0.612
1967	0.160	0.330	0.612
1968	0.164	0.328	0.607
1969	0.167	0.334	0.616
1970	0.171	0.354	0.641
1971	0.182	0.389	0.681
1972	0.186	0.429	0.730
1973	0.216	0.463	0.788
1974	0.304	0.573	0.953
1975	0.445	0.798	1.285
1976	0.580	0.984	1.599
1977	0.790	1.308	1.974
1978	0.905	1.466	2.184
1979	1.178	1.812	2.522
1980	1.588	2.414	3.134
1981	1.982	2.885	3.650
1982^{R}	2.457	3.598	4.456
1983	2.620	4.053	5.120

*Mcf and MMBtu prices are roughly comparable. On a MMBtu basis, the wellhead price would be slightly less.
R – Revised.
Source: For wellhead price, *Monthly Energy Review*.

PRICES

TABLE 9-6
GAS UTILITY INDUSTRY AVERAGE PRICES, BY STATE AND CLASS OF SERVICE, 1983

($/MMBtu)

Division and State	Total	Class of Service			
		Residential	Commercial	Industrial[a]	Other
United States	**$5.12**	**$5.88**	**$5.51**	**$4.41**	**$4.92**
New England	**7.08**	**8.39**	**7.32**	**5.01**	**5.55**
Connecticut	7.78	9.50	7.12	5.87	7.50
Maine	8.72	9.83	8.90	7.66	b
Massachusetts	6.78	8.01	7.30	4.65	5.51
New Hampshire	7.21	7.77	7.45	5.22	7.45
Rhode Island	7.33	8.55	8.13	5.17	b
Vermont	6.00	7.20	6.59	5.06	4.60
Middle Atlantic	**6.36**	**7.08**	**6.34**	**5.21**	**5.99**
New Jersey	6.43	7.31	6.54	5.09	6.70
New York	6.92	7.64	6.62	5.53	6.16
Pennsylvania	5.76	6.25	5.91	5.08	5.61
East North Central	**5.18**	**5.56**	**5.17**	**4.67**	**5.28**
Illinois	4.92	5.19	4.73	4.66	4.22
Indiana	4.85	5.53	5.19	4.29	4.89
Michigan	5.20	5.41	5.29	4.74	1.95
Ohio	5.56	5.90	5.54	5.01	5.60
Wisconsin	5.46	6.42	5.46	4.63	4.44
West North Central	**4.90**	**5.51**	**5.00**	**4.16**	**3.70**
Iowa	4.76	5.44	4.99	4.02	5.29
Kansas	4.21	4.65	4.00	4.04	2.94
Minnesota	5.30	5.91	5.49	4.49	4.51
Missouri	5.56	6.00	5.56	4.45	4.70
Nebraska	4.36	4.95	4.29	3.77	3.44
North Dakota	5.30	5.57	5.10	4.73	c
South Dakota	5.09	5.54	4.95	4.36	c
South Atlantic	**5.32**	**6.54**	**5.78**	**4.45**	**4.87**
Delaware	5.69	6.37	6.04	5.45	3.67
District of Columbia	7.60	7.96	7.31	b	b
Florida	3.90	7.02	4.93	3.45	4.13
Georgia	5.03	5.93	5.18	4.34	5.46
Maryland	6.76	7.29	6.66	5.98	5.28
North Carolina	5.50	6.45	5.89	4.98	5.68
South Carolina	5.14	6.28	5.42	4.72	5.28
Virginia	6.03	6.93	6.21	5.02	6.66
West Virginia	5.58	5.88	5.61	5.23	c
East South Central	**4.77**	**5.54**	**5.17**	**4.25**	**4.51**
Alabama	4.92	6.06	5.20	4.33	4.74
Kentucky	4.98	5.27	5.18	4.53	4.71
Mississippi	4.58	5.85	5.52	4.09	4.62
Tennessee	4.58	5.12	5.04	4.19	3.74
West South Central	**4.15**	**5.19**	**4.79**	**3.85**	**4.28**
Arkansas	3.87	4.41	4.18	3.60	3.29
Louisiana	4.32	5.88	5.68	3.69	3.86
Oklahoma	3.60	4.21	4.00	3.26	2.43
Texas	4.24	5.47	4.99	3.97	4.57
Mountain	**4.76**	**5.33**	**5.04**	**4.00**	**4.37**
Arizona	4.87	6.32	5.23	3.89	4.61
Colorado	5.13	5.54	5.06	4.45	4.66
Idaho	5.59	7.05	5.81	4.80	b
Montana	4.84	4.38	4.79	5.61	5.04
Nevada	5.53	6.42	5.68	4.77	4.81
New Mexico	4.40	5.19	4.69	3.66	4.14
Utah	3.86	4.28	4.34	3.16	c
Wyoming	4.32	5.25	4.87	3.46	6.44
Pacific	**5.39**	**5.30**	**6.12**	**5.22**	**5.86**
Alaska	1.80	2.33	2.07	1.52	b
California	5.42	5.22	6.18	5.33	5.98
Hawaii	14.98	17.94	13.49	14.46	b
Oregon	5.93	6.98	6.34	5.15	b
Washington	5.69	6.64	5.92	5.07	5.24

a. Includes Electric Generation.
b. No sales reported.
c. Less than .05 trillion Btu in sales.

TABLE 9-7
AVERAGE RESIDENTIAL GAS PRICES, BY STATE, 1960-1983

($/MMBtu)

Division and State	1960	1965	1970	1975	1980	1982	1983
United States	**$1.00**	**$1.01**	**$1.06**	**$1.69**	**$3.61**	**$4.97**	**$5.88**
New England	**2.08**	**1.89**	**1.88**	**3.22**	**5.48**	**7.66**	**8.39**
Connecticut	2.02	1.83	1.93	3.27	5.73	8.35	9.50
Maine	3.01	3.33	2.89	4.25	6.35	8.31	9.83
Massachusetts	2.11	1.91	1.87	3.20	5.41	7.47	8.01
New Hampshire	1.99	1.85	1.77	2.46	4.55	6.52	7.77
Rhode Island	1.92	1.80	1.76	3.16	5.48	7.69	8.55
Vermont	3.40	3.44	1.78	2.80	6.43	7.48	7.20
Middle Atlantic	**1.32**	**1.31**	**1.34**	**2.26**	**4.45**	**6.01**	**7.08**
New Jersey	1.79	1.69	1.62	2.59	4.89	6.84	7.31
New York	1.42	1.35	1.38	2.43	4.86	6.26	7.64
Pennsylvania	1.08	1.10	1.17	1.90	3.76	5.24	6.25
East North Central	**0.93**	**0.95**	**0.99**	**1.56**	**3.37**	**4.57**	**5.56**
Illinois	1.11	1.02	1.02	1.58	3.46	4.38	5.19
Indiana	0.98	0.96	1.05	1.45	3.12	4.17	5.53
Michigan	0.94	0.97	1.00	1.60	3.15	4.44	5.41
Ohio	0.76	0.83	0.89	1.51	3.45	4.80	5.90
Wisconsin	1.27	1.14	1.21	1.71	3.80	5.57	6.42
West North Central	**0.83**	**0.85**	**0.92**	**1.37**	**3.08**	**4.66**	**5.51**
Iowa	0.93	0.92	0.96	1.41	3.20	4.64	5.44
Kansas	0.57	0.60	0.69	0.97	2.37	3.99	4.65
Minnesota	1.11	1.05	1.08	1.59	3.24	4.98	5.91
Missouri	0.79	0.84	0.93	1.45	3.37	5.00	6.00
Nebraska	0.85	0.83	0.86	1.26	2.71	4.18	4.95
North Dakota	0.84	0.86	1.05	1.50	3.83	4.61	5.57
South Dakota	0.93	0.95	1.04	1.40	3.11	4.67	5.54
South Atlantic	**1.22**	**1.23**	**1.23**	**2.02**	**4.15**	**5.53**	**6.54**
Delaware	1.72	1.59	1.50	2.34	4.15	5.85	6.37
District of Columbia	1.53	1.47	1.44	2.40	4.56	6.56	7.96
Florida	2.76	2.51	1.81	2.78	4.85	6.51	7.02
Georgia	0.97	1.03	0.98	1.75	4.06	4.97	5.93
Maryland	1.48	1.39	1.43	2.31	4.40	6.08	7.29
North Carolina	1.41	1.38	1.29	2.02	4.00	5.42	6.45
South Carolina	1.43	1.39	1.34	2.08	4.13	5.42	6.28
Virginia	1.55	1.45	1.42	2.29	4.24	5.84	6.93
West Virginia	0.79	0.80	0.87	1.47	3.62	4.97	5.88
East South Central	**0.90**	**0.91**	**0.92**	**1.43**	**3.37**	**4.69**	**5.54**
Alabama	1.06	1.11	1.10	1.72	4.10	5.24	6.06
Kentucky	0.78	0.80	0.84	1.30	3.08	4.53	5.27
Mississippi	0.88	0.87	0.88	1.41	3.39	4.72	5.85
Tennessee	0.94	0.90	0.89	1.33	2.94	4.27	5.12
West South Central	**0.70**	**0.77**	**0.85**	**1.35**	**3.00**	**4.57**	**5.19**
Arkansas	0.66	0.75	0.78	1.12	2.36	3.73	4.41
Louisiana	0.64	0.72	0.75	1.32	3.07	4.87	5.88
Oklahoma	0.69	0.75	0.80	1.15	2.38	3.39	4.21
Texas	0.73	0.80	0.92	1.47	3.30	5.08	5.47
Mountain	**0.72**	**0.74**	**0.83**	**1.34**	**3.23**	**4.64**	**5.33**
Arizona	0.97	1.04	1.14	1.83	3.74	5.49	6.32
Colorado	0.67	0.67	0.71	1.16	3.21	4.93	5.54
Idaho	1.26	1.22	1.34	2.25	4.94	6.45	7.05
Montana	0.60	0.63	0.84	1.18	2.88	4.22	4.38
Nevada	1.47	1.30	1.31	1.81	3.97	5.30	6.42
New Mexico	0.74	0.71	0.84	1.37	3.21	4.64	5.19
Utah	0.63	0.64	0.70	1.12	2.68	3.42	4.28
Wyoming	0.59	0.61	0.65	0.99	2.94	4.40	5.25
Pacific	**0.91**	**0.91**	**0.97**	**1.58**	**3.51**	**4.41**	**5.30**
Alaska	*	1.46	1.42	1.48	1.73	1.83	2.33
California	0.88	0.87	0.93	1.52	3.38	4.26	5.22
Hawaii	3.65	3.74	3.56	7.97	14.58	17.28	17.94
Oregon	1.56	1.52	1.44	2.41	5.36	6.64	6.98
Washington	1.41	1.32	1.29	2.12	4.91	6.46	6.64

* Not available.

TABLE 9-8
AVERAGE ANNUAL RESIDENTIAL GAS BILLS, BY STATE, 1960-1983

($/Customer)

Division and State	1960	1965	1970	1975	1980	1982	1983
United States	**$104**	**$117**	**$137**	**$206**	**$401**	**$532**	**$583**
New England	**103**	**128**	**162**	**274**	**493**	**703**	**728**
Connecticut	109	125	169	285	505	737	781
Maine	88	107	110	165	274	404	424
Massachusetts	106	132	163	276	494	690	695
New Hampshire	102	137	165	234	444	681	718
Rhode Island	91	117	146	266	474	724	733
Vermont	68	80	116	261	661	783	719
Middle Atlantic	**103**	**119**	**144**	**231**	**458**	**621**	**675**
New Jersey	102	124	150	229	439	615	639
New York	90	105	126	217	441	597	661
Pennsylvania	127	142	172	257	501	666	725
East North Central	**128**	**151**	**174**	**257**	**535**	**687**	**756**
Illinois	122	143	169	266	562	706	737
Indiana	101	128	168	220	449	585	662
Michigan	138	168	189	268	545	691	804
Ohio2	140	157	172	259	547	709	785
Wisconsin	117	148	175	238	497	682	740
West North Central	**126**	**135**	**154**	**209**	**405**	**595**	**643**
Iowa	138	148	161	215	408	589	624
Kansas	90	93	114	145	301	485	543
Minnesota	161	176	190	255	450	684	723
Missouri	118	127	155	215	449	621	678
Nebraska	136	134	145	195	350	544	590
North Dakota	100	142	179	245	489	628	662
South Dakota	135	150	159	203	365	574	621
South Atlantic	**113**	**118**	**136**	**194**	**386**	**488**	**551**
Delaware	110	136	164	219	388	515	528
District of Columbia	122	129	147	230	472	647	759
Florida	54	68	87	107	194	222	254
Georgia	107	106	122	181	393	461	529
Maryland	125	133	158	225	425	571	643
North Carolina	110	124	144	188	388	502	559
South Carolina	98	105	122	151	319	365	421
Virginia	129	137	157	230	423	560	629
West Virginia	129	128	140	219	473	623	684
East South Central	**106**	**101**	**116**	**153**	**345**	**440**	**497**
Alabama	103	101	118	157	356	425	477
Kentucky	120	116	132	177	401	531	572
Mississippi	86	77	92	122	291	363	453
Tennessee	111	103	113	140	299	404	463
West South Central	**68**	**71**	**89**	**130**	**253**	**368**	**421**
Arkansas	81	85	103	128	226	377	410
Louisiana	56	59	72	108	236	349	424
Oklahoma	79	87	102	138	246	350	422
Texas	67	69	89	135	265	377	421
Mountain	**99**	**104**	**117**	**175**	**336**	**463**	**494**
Arizona	73	80	89	141	221	318	354
Colorado	100	103	111	171	385	515	555
Idaho	127	143	154	249	393	495	500
Montana	106	126	148	203	363	541	475
Nevada	130	134	148	204	347	521	460
New Mexico	99	96	109	173	318	431	473
Utah	127	128	148	201	373	487	563
Wyoming	102	106	117	160	378	566	616
Pacific	**84**	**94**	**103**	**174**	**286**	**354**	**389**
Alaska	*	341	282	328	375	421	478
California	82	92	97	166	272	337	378
Hawaii	92	102	120	232	364	388	395
Oregon	123	138	163	258	428	517	481
Washington	132	152	165	259	469	586	534

*Not available.

GAS FACTS

TABLE 9-9
AVERAGE RESIDENTIAL CONSUMPTION AND COSTS
1960–1983*

	Gas				
Year	Consumption (MMBtu/ Customer)	Annual Bill ($/Customer)	Price ($/MMBtu)	Electric Price ($/MMBtu)	Number 2 Fuel Oil Price ($/MMBtu)
1960	104.8	$104.46	$1.00	$ 7.24	$1.08
1961	106.7	108.51	1.02	7.18	1.12
1962	110.9	112.98	1.02	7.06	1.13
1963	112.1	113.96	1.02	6.95	1.15
1964	115.3	116.09	1.01	6.77	1.12
1965	116.5	117.34	1.01	6.59	1.15
1966	118.8	119.38	1.00	6.45	1.18
1967	121.5	122.03	1.00	6.36	1.21
1968	124.1	124.48	1.00	6.21	1.25
1969	128.4	130.08	1.01	6.13	1.28
1970	129.2	136.69	1.06	6.15	1.33
1971	129.9	145.28	1.12	6.42	1.41
1972	130.4	154.56	1.19	6.71	1.42
1973	124.5	155.73	1.25	6.98	1.64
1974	119.6	169.82	1.42	8.29	2.60
1975	121.9	206.24	1.69	9.40	2.81
1976	121.3	240.48	1.98	10.11	3.01
1977	118.7	276.87	2.33	11.08	3.42
1978	121.0	307.40	2.53	11.81	3.66
1979	118.6	346.39	2.92	12.69	5.24
1980	111.0	400.84	3.61	14.45	7.21
1981	104.4	434.43	4.16	17.00	8.95
1982^{R}	107.1	531.96	4.97	18.90	8.70
1983	99.1	583.00	5.88	20.50	7.92

*Prices given are for total usage.

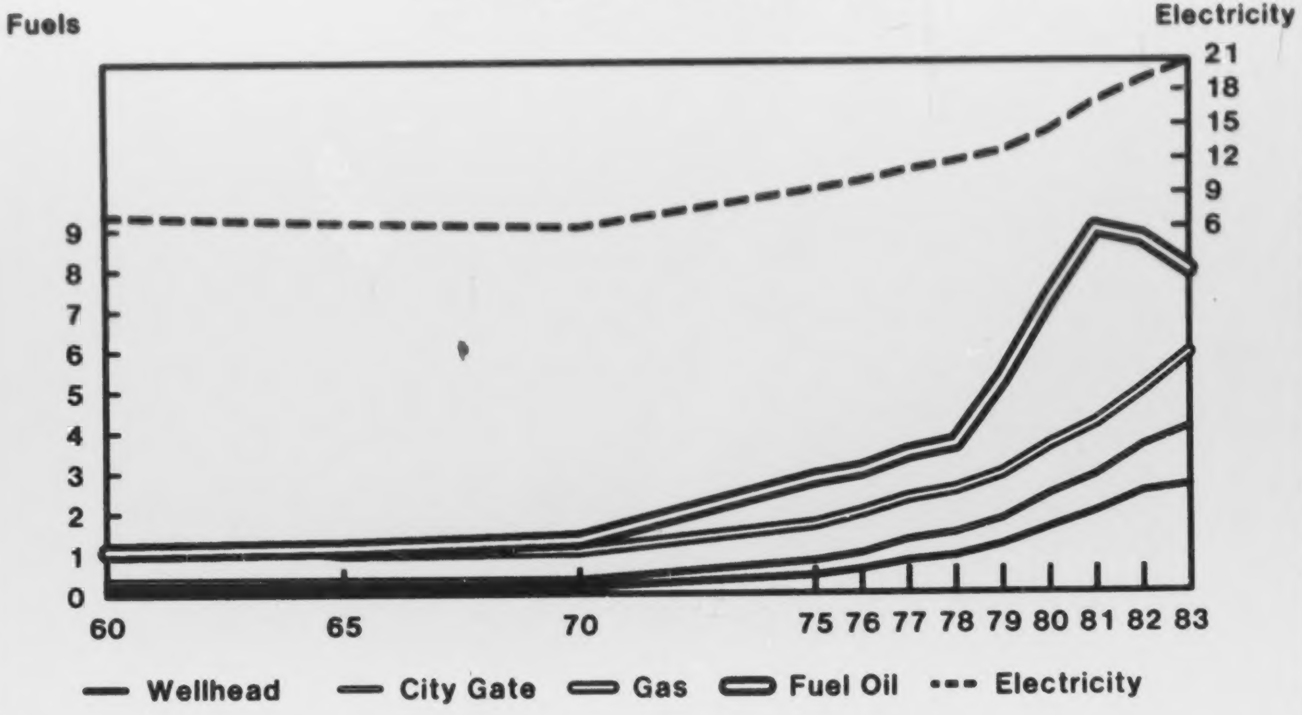
R – Revised.

Sources: For electric price, Edison Electric Institute Statistical Yearbook. For oil price, Bureau of Labor Statistics.

CHART 9-1

RESIDENTIAL PRICES OF FUELS & ELECTRICITY

(DOLLARS/MILLION BTU)



REFERENCE: TABLES 9-5, 9-9

TABLE 9-10
AVERAGE RESIDENTIAL GAS PRICES BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

($/MMBtu)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84*
Total U.S.	$2.35	$2.62	$3.28	$3.84	$4.52	$5.56	$5.71
NE	3.91	4.07	4.98	5.71	7.04	8.39	7.47
MA	3.02	3.35	3.94	4.67	5.42	6.02	6.65
ENC	2.25	2.44	3.14	3.52	4.12	5.12	5.47
WNC	1.97	2.42	2.75	3.46	4.35	5.35	5.27
SA	2.74	2.98	3.92	4.27	5.17	6.12	6.46
ESC	2.04	2.41	3.09	3.57	4.28	5.38	5.22
WSC	2.15	2.35	2.91	3.23	3.97	4.87	5.00
M	2.02	2.34	2.98	3.79	4.48	5.13	5.21
P	1.89	2.20	2.98	3.59	3.91	4.98	5.46

*Data used for 1984 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-11
AVERAGE GAS CONSUMPTION BY HOUSEHEATING CUSTOMERS BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

(MMBtu/Customer)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84*
Total U.S.	94.7	93.8	83.3	81.4	81.8	70.7	78.2
NE	96.9	95.2	93.9	92.5	88.8	75.2	85.2
MA	120.9	111.7	107.4	113.6	111.3	89.8	101.7
ENC	125.8	128.0	112.9	115.1	116.1	92.2	108.7
WNC	118.2	113.5	105.3	87.5	93.4	77.8	89.1
SA	88.8	76.2	71.0	74.1	69.9	60.6	67.5
ESC	90.5	86.4	75.1	71.5	68.7	60.3	70.1
WSC	72.0	66.5	53.7	55.5	54.4	54.9	60.9
M	74.5	84.9	76.0	59.2	59.4	62.8	64.5
P	51.1	64.3	50.7	45.6	48.3	47.4	41.8

*Data used for 1984 was based on the *Quarterly Report of Gas Industry Operations.*

TABLE 9-12
AVERAGE GAS BILL FOR HOUSEHEATING CUSTOMERS BY CENSUS DIVISION HEATING SEASON—NOVEMBER THRU MARCH

($/Customer)

	1977-78	1978-79	1979-80	1980-81	1981-82	1982-83	1983-84*
Total U.S.	$223	$246	$273	$313	$370	$393	$447
NE	379	387	468	528	625	631	636
MA	365	374	423	531	603	541	677
ENC	283	312	355	405	478	472	594
WNC	233	275	290	303	406	416	469
SA	243	227	278	316	361	371	436
ESC	185	208	232	255	294	325	366
WSC	155	156	156	179	216	267	304
M	150	199	226	224	266	322	336
P	97	141	151	164	189	236	228

*Data used for 1984 was based on the *Quarterly Report of Gas Industry Operations.*

PRICES

TABLE 9-13
GAS UTILITY INDUSTRY AVERAGE PRICES, FOR GAS USED FOR ELECTRIC GENERATION, BY STATE, 1977-1983

($/MMBtu)

Division and State	1977	1978	1979	1980	1981	1982^R	1983
United States	**$1.60**	**$1.72**	**$2.12**	**$2.65**	**$3.24**	**$ 4.09**	**$ 4.20**
New England	**1.87**	**2.41**	**2.65**	**3.50**	**3.64**	**4.20**	**3.93**
Connecticut	b	b	b	b	b	b	b
Maine	b	b	b	b	b	b	b
Massachusetts	1.90	1.88	2.69	3.53	3.74	4.21	3.95
New Hampshire	1.50	b	b	b	b	b	b
Rhode Island	b	2.04	2.49	3.39	3.35	4.09	3.69
Vermont	b	b	b	b	b	b	b
Middle Atlantic	**1.54**	**1.64**	**1.69**	**3.04**	**3.74**	**4.36**	**4.41**
New Jersey	1.68	1.83	2.84	3.15	3.88	4.59	4.38
New York	1.54	1.55	2.36	3.30	3.84	5.42	6.57
Pennsylvania	1.59	1.63	2.58	2.77	3.38	3.58	4.94
East North Central	**2.00**	**2.24**	**2.33**	**2.97**	**3.63**	**4.31**	**4.95**
Illinois	1.74	2.70	2.61	3.20	3.98	4.33	4.98
Indiana	1.30	1.65	2.26	2.68	3.05	3.54	4.28
Michigan	2.07	1.99	2.10	2.83	3.40	4.34	5.51
Ohio	1.31	1.31	2.24	2.83	3.32	4.23	5.05
Wisconsin	1.91	2.20	2.29	2.89	3.43	4.27	4.42
West North Central	**1.07**	**1.16**	**1.43**	**1.90**	**2.25**	**2.83**	**3.47**
Iowa	1.23	1.66	2.00	2.42	3.10	3.71	3.84
Kansas	1.05	1.16	1.45	1.83	2.12	2.64	3.33
Minnesota	1.18	1.69	1.80	2.02	2.62	3.41	3.86
Missouri	1.09	1.12	1.43	2.35	2.77	3.99	4.42
Nebraska	1.07	1.13	1.17	1.84	2.37	3.13	3.30
North Dakota	b	b	b	a	a	a	a
South Dakota	1.11	1.30	1.45	b	b	b	b
South Atlantic	**0.97**	**1.27**	**2.16**	**2.24**	**2.84**	**3.22**	**3.19**
Delaware	b	b	b	b	b	b	b
District of Columbia	b	b	b	b	b	b	b
Florida	0.93	1.15	2.15	2.21	2.81	3.20	3.16
Georgia	1.15	1.60	2.17	2.58	3.32	3.87	4.06
Maryland	b	b	b	b	4.27	4.22	b
North Carolina	b	b	2.82	3.37	4.55	4.02	4.69
South Carolina	b	b	2.92	3.17	4.20	4.22	4.44
Virginia	b	b	b	b	b	b	b
West Virginia	1.62	b	b	3.14	4.04	3.93	4.47
East South Central	**1.29**	**1.53**	**1.91**	**2.29**	**2.76**	**3.19**	**3.57**
Alabama	1.47	1.63	b	a	a	a	a
Kentucky	b	b	b	b	b	b	b
Mississippi	1.29	1.52	1.91	2.29	2.76	3.19	3.57
Tennessee	b	b	b	2.33	2.84	a	b
West South Central	**1.61**	**1.79**	**2.14**	**2.37**	**2.96**	**3.83**	**3.93**
Arkansas	1.10	1.20	1.74	1.73	2.14	3.18	3.52
Louisiana	1.41	1.59	2.03	2.39	3.03	3.53	3.78
Oklahoma	1.40	1.47	1.61	1.82	1.94	2.80	3.16
Texas	1.56	1.75	2.13	2.48	3.13	3.97	3.98
Mountain	**1.35**	**1.45**	**2.06**	**2.44**	**2.93**	**3.63**	**3.84**
Arizona	1.10	1.38	1.88	2.26	2.92	3.63	3.38
Colorado	1.07	1.31	2.00	2.63	3.28	3.80	4.28
Idaho	b	b	b	b	b	b	b
Montana	b	b	b	1.93	a	a	a
Nevada	1.73	1.62	2.36	2.62	3.08	4.16	4.84
New Mexico	1.40	1.55	1.97	2.30	2.65	3.28	3.53
Utah	1.04	1.26	1.53	b	b	b	b
Wyoming	b	b	b	b	b	b	b
Pacific	**2.06**	**2.14**	**2.40**	**3.45**	**3.91**	**4.95**	**4.98**
Alaska	0.76	0.88	0.85	0.88	1.19	.95	1.43
California	2.10	2.18	2.44	3.53	3.96	5.07	5.11
Hawaii	b	b	b	b	b	b	b
Oregon	b	b	b	4.80	5.54	a	a
Washington	b	2.20	3.05	b	4.77	7.54	a

a. Less than .05 trillion Btu in sales.
b. No sales reported.
R—Revised.

TABLE 9-14

AVERAGE CONSUMER PRICE INDEXES, 1960-1983[a]

(1967 = 100)

Year	All Items	Total Food	Apparel[b] and Upkeep	Shelter[c]	Gas and Electricity	Fuel Oil[d] and Coal	House Furnishing[e] and Operation	Trans-portation	Medical Care	Personal Care	Reading and Recreation	Other Goods and Services[f]
1960	88.6	88.0	89.6	87.8	98.6	89.2	99.3	89.6	79.1	90.1	87.3	87.8
1961	89.6	89.1	90.2	88.5	99.4	91.0	98.7	90.6	81.4	90.6	89.3	88.5
1962	90.6	89.9	90.5	89.6	99.4	91.5	98.1	92.5	83.5	92.2	91.3	89.1
1963	91.7	91.2	91.9	90.7	99.4	93.2	97.7	93.0	85.6	93.4	92.8	90.6
1964	92.2	92.4	92.7	92.2	99.4	92.7	97.6	94.3	87.3	94.6	95.0	92.0
1965	94.5	94.4	93.7	93.8	99.4	94.6	97.1	95.9	89.5	95.2	94.2	
1966	97.2	99.1	96.1	96.8	99.6	97.0	98.0	97.2	97.1	97.5	97.2	
1967	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1968	104.2	103.6	105.4	104.8	100.9	103.1	103.9	103.2	106.1	104.2	104.7	104.6
1969	109.8	108.9	111.5	113.3	102.8	105.6	109.0	107.2	113.4	109.3	108.7	110.3
1970	116.3	114.9	116.1	123.6	107.3	110.1	113.4	112.7	120.6	113.2	113.4	116.2
1971	121.3	118.4	119.8	128.8	114.7	117.5	118.1	118.6	128.4	116.8	119.3	122.2
1972	125.3	123.5	122.3	134.5	120.5	118.5	121.0	119.9	132.5	119.8	122.8	126.1
1973	133.1	141.4	126.8	140.7	126.4	136.0	124.9	123.8	137.7	125.2	125.9	129.0
1974	147.7	161.7	136.2	154.4	145.8	214.6	140.5	137.7	150.5	138.3	133.8	137.2
1975	161.2	175.4	142.3	169.7	169.6	235.3	158.1	150.6	168.6	150.7	144.4	147.4
1976	170.5	180.8	147.6	179.0	189.0	250.8	168.5	165.5	184.7	160.5	151.2	153.3
1977	181.5	192.2	154.2	191.1	213.4	283.4	177.0	177.2	202.4	170.9	157.9	159.2
1978	195.3	211.2	159.5	210.3	232.6	298.3	177.0	185.8	219.4	182.0	g	183.2
1979	217.7	234.7	166.4	240.3	257.6	403.6	188.9	212.8	240.1	195.5	g	196.3
1980	247.0	255.3	177.4	283.1	301.2	557.2	202.9	250.5	267.2	212.7	g	213.6
1981	272.4	274.6	186.9	314.7	345.9	675.9	221.3	280.0	294.5	232.0	g	235.7
1982	289.1	285.7	191.8	337.0	393.8	667.9	233.2	291.5	328.7	248.3	g	257.0
1983	298.4	291.7	196.5	344.8	428.7	628.0	238.5	298.4	357.3	261.1	g	288.3

a. Applicable to "wage-earners and clerical workers in urban United States."
b. Includes apparel only prior to June 1964.
c. Includes hotel and motel rates.
d. Starting in 1978 includes bottled gas.
e. Includes house furnishings only prior to 1969.
f. Prior to 1978 included alcoholic beverages, now found in food and beverages; now includes personal care and education—related expenses, formerly found in health and recreation.
g. Not available.
Source: Bureau of Labor Statistics. *The Consumer Price Index*, 1983.

TABLE 9-15
INDEXES OF WHOLESALE PRICES OF GAS, YEARLY AVERAGES, 1960-1983 AND MONTHLY AVERAGES, 1983

(1967 = 100)

Year and Month	All Gas	Utility Gas	Liquefied Petroleum Gas
1960	87.2	90.5	73.2
1961	88.8	94.9	58.7
1962	89.2	96.8	52.2
1963	91.8	97.5	69.6
1964	90.7	97.7	56.5
1965	92.8	97.8	69.2
1966	96.7	98.6	89.1
1967	100.0	100.0	100.0
1968	91.3	101.9	60.2
1969	93.1	103.0	63.7
1970	103.0	105.6	96.3
1971	108.0	112.2	95.7
1972	114.1	121.0	93.7
1973	126.7	131.3	113.2
1974	162.2	154.6	183.5
1975	216.7	215.3	221.0
1976	286.8	291.8	287.7
1977	387.8	412.3	367.9
1978	428.6	488.2	343.5
1979	544.4	637.6	406.9
1980	760.4	846.6	642.2
1981	939.8	1,099.1	703.6
1982	1,060.8	1,338.1	628.0
1983	1,147.9	1,426.9	714.5
January	1,147.3	1,425.6	715.1
February	1,154.7	1,441.7	708.1
March	1,180.0	1,484.7	704.6
April	1,156.1	1,445.4	705.6
May	1,156.7	1,436.6	722.2
June	1,155.1	1,439.1	713.5
July	1,148.9	1,421.2	727.0
August	1,145.9	1,418.5	723.2
September	1,149.3	1,427.1	718.0
October	1,130.7	1,387.2	734.6
November	1,124.2	1,392.7	707.8
December	1,125.6	1,402.7	694.7

Source: Bureau of Labor Statistics, *Producer Prices and Price Index*, 1983. Represents unofficial estimates of U.S. Bureau of Labor Statistics, based on wellhead prices for natural gas by 20 major pipeline companies, and L.P.G. price quotations from 2 major producers.

SECTION 10
ENERGY CONSUMPTION

	1983	% Change 83/82
Annual Consumption		
(Trillions of Btu)		
Total	70,573	− 3.8
Natural Gas Dry	17,503	− 4.6
Crude Petroleum	29,983	− 1.2
Bituminous & Lignite	15,861	+ 3.1
Hydropower	3,857	+ 8.0
Nuclear	3,235	+ 4.9
Other	135	+25.0

Note: Percentage changes based on preliminary data for both years.

TABLE 10-1

ANNUAL CONSUMPTION OF ENERGY RESOURCES IN THE UNITED STATES, BY MAJOR SOURCES, BY CONSUMING SECTORS, 1976-1983[a]

(Trillions of Btu)

Consuming Sectors	Coal and Coke	Natural gas dry[b]	Petroleum[c]	Hydropower[d]	Nuclear power[d]	Other[e]	Total gross energy inputs[f]	Utility electricity purchased[g]	Total Sector energy inputs
Household and commercial:									
1976[R]	206	7,866	4,181	–	–	–	12,253	3,747	16,000
1977[R]	207	7,461	4,206	–	–	–	11,874	3,955	15,829
1978[R]	215	7,624	4,070	–	–	–	11,909	4,116	16,025
1979[R]	188	7,891	3,448	–	–	–	11,527	4,184	15,711
1980[R]	147	7,539	3,035	–	–	–	10,721	4,355	15,076
1981[R]	171	7,249	2,634	–	–	–	10,054	4,497	14,551
1982[R]	189	7,433	2,449	–	–	–	10,071	4,566	14,637
1983[P]	192	7,244	2,326	–	–	–	9,762	4,683	14,445
Industrial:									
1976[R]	3,595	8,761	9,018	33	–	–	21,407	2,537	23,944
1977[R]	3,409[h]	8,636	9,786	33	–	–	21,864	2,682	24,546
1978[R]	3,389[h]	8,539	9,890	32	–	–	21,850	2,761	24,611
1979[R]	3,598[h]	8,549	10,576	34	–	–	22,757	2,873	25,630
1980[R]	3,066[h]	8,394	9,524	33	–	–	21,017	2,781	23,798
1981[R]	3,092[h]	8,265	8,295	33	–	–	19,685	2,817	22,502
1982[R]	2,497[h]	7,116	7,798	33	–	–	17,444	2,542	19,986
1983[P]	2,442	6,663	7,733	33	–	–	16,871	2,648	19,519
Transportation:[i]									
1976[R]	–	559	18,499	–	–	–	19,058	10	19,068
1977[R]	–	543	19,230	–	–	–	19,773	10	19,783
1978[R]	–	539	20,019	–	–	–	20,558	9	20,567
1979[R]	–	612	19,817	–	–	–	20,429	10	20,439
1980[R]	–	648	19,009	–	–	–	19,657	11	19,668
1981[R]	–	658	18,800	–	–	–	19,458	11	19,469
1982[R]	–	613	18,417	–	–	–	19,030	11	19,041
1983[P]	–	578	18,380	–	–	–	18,958	10	18,968
Electricity generation, utilities:									
1976[R]	9,720	3,152	3,477	3,032	2,111	81	21,573	(6,294)	–
1977[R]	10,243	3,284	3,901	2,482	2,702	82	22,694	(6,647)	–
1978[R]	10,236	3,297	3,987	3,110	3,024	68	23,722	(6,886)	–
1979[R]	11,264	3,609	3,283	3,107	2,776	89	24,129	(7,067)	–
1980[R]	12,122	3,807	2,634	3,085	2,739	114	24,501	(7,147)	–
1981[R]	12,583	3,760	2,202	3,072	3,008	127	24,752	(7,325)	–
1982[R]	12,582	3,338	1,568	3,559	3,115	108	24,271	(7,119)	–
1983[P]	13,226	3,011	1,544	3,834	3,235	135	24,975	(7,341)	–
Unaccounted for:									
1976[R]	–	6	–	–	–	–	6	–	6
1977[R]	3	7	–	–	–	–	10	–	10
1978[R]	–	–	–	–	–	–	–	–	–
1979[R]	–	3	–	–	–	–	3	–	3
1980[R]	–	4	–	–	–	–	4	–	4
1981[R]	(3)	(6)	–	–	–	–	(9)	–	(9)
1982[R]	–	6	–	–	–	–	6	–	6
1983[P]	–	7	–	–	–	–	7	–	7
Total gross energy inputs:									
1976[R]	13,519	20,345	35,175	3,066	2,111	81	74,297	–	59,012
1977[R]	13,863	19,931	37,122	2,515	2,702	82	76,215	–	60,168
1978[R]	13,841	20,000	37,965	3,141	3,024	68	78,039	–	61,203
1979[R]	15,049	20,666	37,123	3,141	2,776	89	78,845	–	61,783
1980[R]	15,336	20,391	34,202	3,118	2,739	114	75,900	–	58,546
1981[R]	15,843	19,926	31,931	3,105	3,008	127	73,940	–	56,513
1982[R]	15,268	18,507	30,232	3,592	3,115	108	70,822	–	53,670
1983[P]	15,861	17,503	29,983	3,857	3,235	135	70,573	–	52,939

a. Gross energy is the total of inputs into the economy of the primary fuels (including imports) or their derivatives, plus the generation of hydro, nuclear power and other (converted to equivalent energy inputs).

b. Excludes natural gas liquids.

c. Petroleum products including still gas, liquefied refinery gas and natural gas liquids.

d. Outputs and hydropower (adjusted for net imports or net exports) are converted to theoretical energy inputs using 10,470 Btu per net KWH for 1983. Energy input for nuclear power converted at an average heat rate of 11,015 Btu per net KWH. Excludes inputs for power generation by non-utility plants, which are included within the other consuming sectors.

e. Includes geothermal power and electricity produced from wood and waste.

f. Gross energy resource inputs with electricity generation shown as separate consuming sector.

g. Utility electricity generated and imported, distributed to the other consuming sectors as energy resource inputs.

h. Includes net imports of coke of 15 trillion Btu in 1977, 131 trillion Btu in 1978, 66 trillion Btu in 1979, -37 trillion Btu in 1980, -17 trillion Btu in 1981, -23 trillion Btu in 1982, and -16 trillion Btu in 1983.

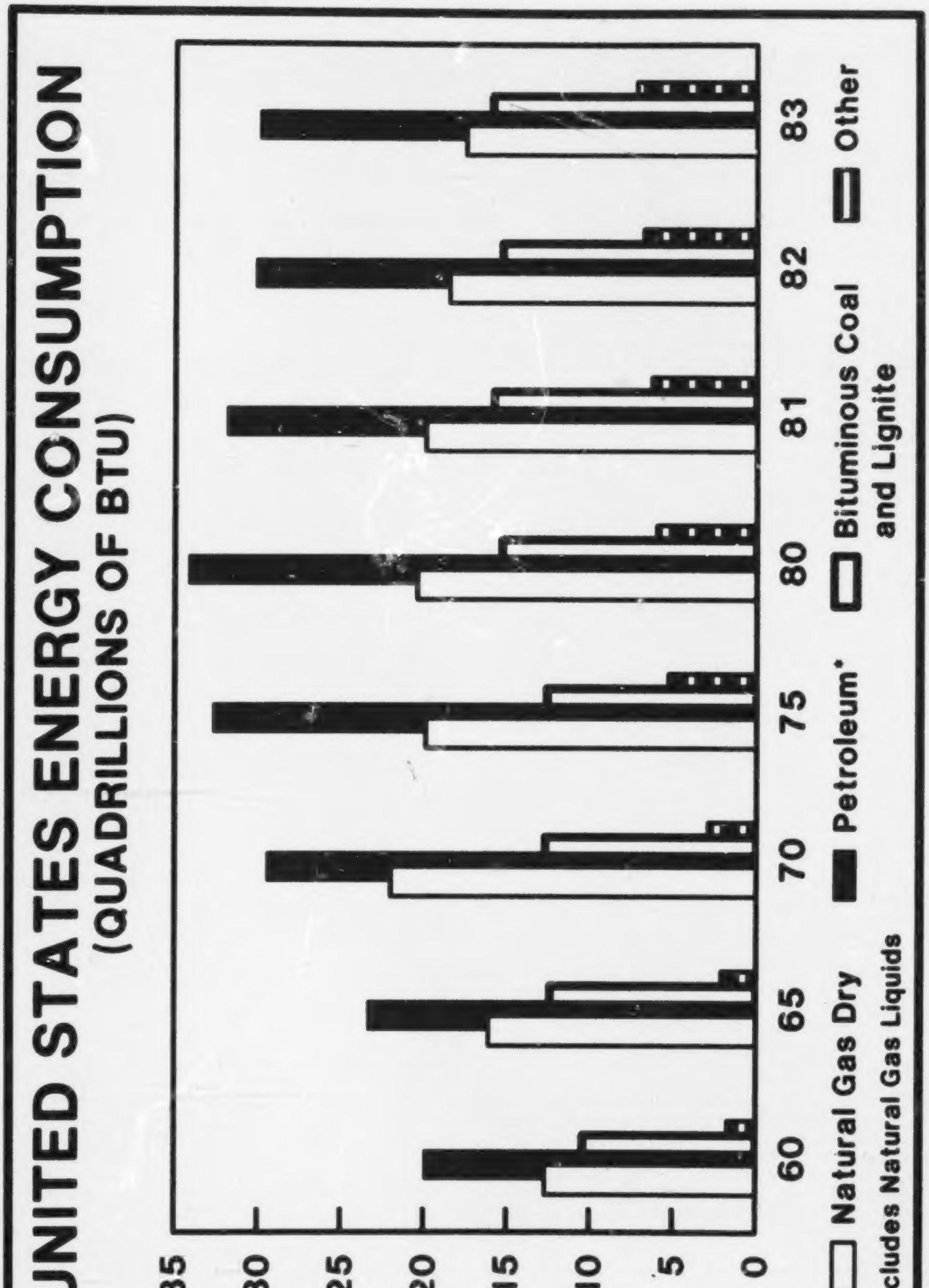
i. Includes bunkers and military transportation.

R–Revised. Note that all years have been revised.

P–Preliminary.

Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

CHART 10-1



REFERENCE: TABLE 10-2

TABLE 10-2

ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1983[a]

(Trillions of Btu)[b]

Year	Natural Gas Dry[c]	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite[d]	Anthracite Coal	Hydro-power[e]	Nuclear[e]	Other[f]	Grand Total Energy
1960	12,736	1,427	18,608	9,967	447	1,626	5	*	44,816
1961	13,228	1,498	18,989	9,809	404	1,628	17	*	45,573
1962	14,027	1,586	19,681	10,160	363	1,780	23	*	47,620
1963	14,843	1,703	20,247	10,722	361	1,740	33	*	49,649
1964	15,515	1,772	20,700	11,295	365	1,873	34	*	51,554
1965	16,097	1,853	21,566	12,030	328	2,057	38	*	53,969
1966	17,393	1,989	22,405	12,740	290	2,073	58	*	56,948
1967	18,250	2,043	23,292	11,982	274	2,344	80	*	58,265
1968	19,580	2,239	24,813	12,401	258	2,342	130	*	61,763
1969	21,020	2,459	25,962	12,509	224	2,659	146	*	64,979
1970	22,029	2,494	27,043	12,488	210	2,650	229	*	67,143
1971	22,470	2,496	28,074	11,858	187	2,862	404	*	68,351
1972	22,698	2,706	30,260	12,273	150	2,946	576	*	71,609
1973[R]	22,512	2,652	32,188	12,895	h	3,010	910	46	74,212
1974[R]	21,732	2,565	30,890	12,655	h	3,309	1,272	56	72,479
1975[R]	19,948	2,484	30,247	12,615	h	3,219	1,900	72	70,485
1976[R]	20,345	g	35,175	13,519	h	3,066	2,111	81	74,297
1977[R]	19,931	g	37,122	13,863	h	2,515	2,702	82	76,215
1978[R]	20,000	g	37,965	13,841	h	3,141	3,024	68	78,039
1979[R]	20,666	g	37,123	15,049	h	3,141	2,776	89	78,845
1980[R]	20,391	g	34,202	15,336	h	3,118	2,739	114	75,900
1981[R]	19,926	g	31,931	15,843	h	3,105	3,008	127	73,940
1982[R]	18,507	g	30,232	15,268	h	3,592	3,115	108	70,822
1983[P]	17,503	g	29,983	15,861	h	3,857	3,235	135	70,573

a. Represents production minus exports plus imports, and adjusted for change in inventories.

b. The Btu value per cubic foot for natural gas dry for 1964 and prior years is 1,035; 1965-1968 1,032; 1969, 1971 and 1972 1,031; 1973 1,021; 1974 1,024; 1975 1,021; 1976 1,020; 1977 1,021; 1978 1,019, 1979 1,021; 1980 1,026; 1981 1,027; 1982-83 1,028.

c. Marketed production minus shrinkage caused by liquids extraction.

d. Includes net imports of coke of -8 trillion Btu in 1973, 59 trillion Btu in 1974, 14 trillion Btu in 1975, 15 trillion Btu in 1977, 131 trillion Btu in 1978, 66 trillion Btu in 1979, -37 trillion Btu in 1980, -17 trillion Btu in 1981, -23 trillion Btu in 1982, -16 trillion Btu in 1983.

e. See Table 3-1 for procedures used to determine Btu equivalents.

f. Includes energy from geothermal, wood or waste products.

g. Included in "Crude Petroleum and Products."

h. Included in "Bituminous Coal and Lignite."

R—Revised. P—Preliminary. *—Not available.

Source: Prior to 1977, U.S. Bureau of Mines, 1977 and beyond, U.S. Department of Energy, Energy Information Administration, *Monthly Energy Review.*

ENERGY CONSUMPTION

TABLE 10-3

ANNUAL CONSUMPTION OF FOSSIL ENERGY RESOURCES, AND ELECTRICITY FROM HYDROPOWER AND NUCLEAR POWER, IN THE UNITED STATES, 1960-1983

(Percentage)

Year	Natural Gas Dry	Natural Gas Liquids	Crude Petroleum and Products	Bituminous Coal and Lignite	Anthracite Coal	Hydro-power	Nuclear	Other	Grand Total Energy
1960	28.4	3.2	41.6	22.2	1.0	3.6	a	*	100.0
1965	29.8	3.4	40.0	22.3	0.6	3.8	0.1	*	100.0
1966	30.9	3.5	39.7	22.4	0.5	3.7	0.1	*	100.0
1967	31.3	3.5	40.0	20.6	0.5	4.0	0.1	*	100.0
1968	31.7	3.6	40.2	20.1	0.4	3.8	0.2	*	100.0
1969	32.4	3.8	39.9	19.3	0.3	4.1	0.2	*	100.0
1970	32.8	3.7	40.3	18.6	0.3	4.0	0.3	*	100.0
1971	32.9	3.6	41.1	17.3	0.3	4.2	0.6	*	100.0
1972	31.7	3.8	42.3	17.1	0.2	4.1	0.8	*	100.0
1973^R	30.3	3.6	43.3	17.4	b	4.1	1.2	0.1	100.0
1974^R	30.0	3.5	42.6	17.5	b	4.6	1.7	0.1	100.0
1975^R	28.3	3.5	42.9	17.9	b	4.6	2.7	0.1	100.0
1976^R	27.4	c	47.4	18.2	b	4.1	2.8	0.1	100.0
1977^R	26.2	c	48.7	18.2	b	3.3	3.5	0.1	100.0
1978^R	25.6	c	48.7	17.7	b	4.0	3.9	0.1	100.0
1979^R	26.2	c	47.1	19.1	b	4.0	3.5	0.1	100.0
1980^R	26.9	c	45.1	20.2	b	4.1	3.6	0.1	100.0
1981^R	26.9	c	43.2	21.4	b	4.2	4.1	0.2	100.0
1982^R	26.1	c	42.9	21.5	b	5.0	4.4	0.1	100.0
1983	24.8	c	42.5	22.5	b	5.4	4.6	0.2	100.0

a. Less than 0.05.
b. Included in "Bituminous Coal and Lignite."
c. Included in "Crude Petroleum and Products."
Source: Same as Table 10-2.
R—Revised.
*—Not available.

TABLE 10-4

ENERGY CONSUMPTION PER CAPITA IN THE UNITED STATES 1960-1983*

Year	Total Energy Consumed (Trillions of Btu)	Natural Gas Consumed (Trillions of Btu)	Resident Population (Thousands)	Energy Consumed Per Capita (Millions of Btu)	Natural Gas Consumed Per Capita (Millions of Btu)	Gross National Product (1972 $)^R	Total Energy Per Dollar of GNP (1972 $)^R	Index of Industrial Production (1972=100)
1960	44,816	12,736	179,992	249	71	737.2	60.8	55.3
1965	53,969	16,097	193,815	278	83	929.3	58.1	75.0
1966	56,948	17,393	195,936	291	89	984.8	57.8	81.7
1967	58,265	18,250	197,859	294	92	1,011.4	57.6	83.5
1968	61,763	19,580	199,846	309	98	1,058.1	58.4	88.8
1969	64,979	21,020	201,423	323	104	1,087.6	59.7	92.8
1970	67,143	22,029	203,302	330	108	1,085.6	61.8	90.1
1971	68,351	22,470	206,827	330	109	1,122.4	60.9	91.6
1972	71,609	22,698	209,284	342	108	1,185.9	60.4	100.0
1973^R	74,212	22,512	211,357	351	107	1,254.3	59.2	108.4
1974^R	72,479	21,732	213,342	340	102	1,246.3	58.2	108.0
1975^R	70,485	19,948	215,465	327	93	1,231.6	57.2	98.4
1976^R	74,297	20,345	217,563	341	94	1,298.2	57.2	109.0
1977^R	76,215	19,931	219,760	347	91	1,369.7	55.6	115.5
1978^R	78,039	20,000	222,095	351	90	1,438.6	54.2	122.1
1979^R	78,845	20,666	224,567	351	92	1,479.4	53.3	127.4
1980^R	75,900	20,391	226,505	335	90	1,475.0	51.5	122.7
1981^R	73,940	19,926	229,307	322	87	1,513.8	48.8	126.0
1982^R	70,822	18,507	231,507	306	80	1,485.4	47.7	115.7
1983	70,573	17,503	233,686	302	75	1,535.3	46.0	123.2

Source: U.S. Department of Energy, U.S. Bureau of the Census and the Federal Reserve Board.
R—Revised.

TABLE 10-5
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER, BY CLASS OF SERVICE 1960-1983[a]

(MMBtu/Customer)

Year	Total	Residential	Commercial	Industrial[b]	Other[b]
1960	281.0	104.8	374.2	33,495.0	12,577.5
1961	283.4	106.7	390.7	32,621.7	13,468.7
1962	295.1	110.9	420.7	32,713.9	13,795.1
1963	302.8	112.1	430.6	33,630.8	13,460.2
1964	317.9	115.3	469.5	37,089.1	13,234.6
1965	320.9	116.5	482.1	36,982.6	12,009.8
1966	336.4	118.8	510.0	38,259.3	12,755.1
1967	345.2	121.5	537.8	38,710.3	11,397.0
1968	362.4	124.1	567.6	40,378.0	13,129.2
1969	376.7	128.4	611.0	42,220.0	11,327.2
1970	386.8	129.2	640.9	42,386.7	12,232.3
1971	395.0	129.9	673.8	42,235.0	17,064.6
1972	397.7	130.4	697.3	41,948.8	16,428.8
1973	377.0	124.5	684.6	40,051.7	15,129.5
1974	361.1	119.6	676.1	42,066.8	12,586.1
1975	333.6	121.9	708.9	37,253.5	12,039.8
1976	329.7	121.3	718.6	40,022.3	3,511.6
1977	316.8	118.7	714.8	39,217.5	3,996.3
1978	322.2	121.0	743.6	36,635.8	4,511.8
1979	330.3	118.6	726.5	40,345.3	5,133.9
1980	326.4	111.0	701.0	42,505.2	3,645.2
1981	320.7	104.4	666.4	44,020.2	3,235.0
1982[R]	292.9	107.1	680.6	36,514.2	3,243.0
1983	263.5	99.1	624.9	32,762.4	3,000.8

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages. Excludes data for Alaska prior to 1961.

b. Prior to 1976, "Other" electric generation (See Table 6-12) is included in the "Other" class of service. For 1976 and beyond, all electric generation is included in the Industrial category.

R—Revised.

TABLE 10-6
GAS UTILITY INDUSTRY AVERAGE ANNUAL RESIDENTIAL CONSUMPTION PER CUSTOMER BY STATE, 1960-1983[a]

(MMBtu/Customer)

Division and State	1960	1965	1970	1975	1980	1982[R]	1983
United States	**104.8**	**116.5**	**129.2**	**121.9**	**111.0**	**107.1**	**99.1**
New England	**49.5**	**67.7**	**86.0**	**85.3**	**90.0**	**91.7**	**85.6**
Connecticut	51.2	68.7	87.6	84.6	88.1	88.3	82.3
Maine	29.3	32.1	38.2	38.7	43.2	48.6	43.2
Massachusetts	50.2	69.2	87.0	86.0	91.3	92.3	86.8
New Hampshire	51.4	74.1	93.3	95.1	97.7	104.6	92.4
Rhode Island	47.6	65.0	82.9	84.0	86.7	94.1	85.8
Vermont	19.9	23.1	65.2	93.3	102.8	104.7	99.9
Middle Atlantic	**77.6**	**91.2**	**107.3**	**102.1**	**102.8**	**103.4**	**95.3**
New Jersey	56.9	73.5	92.2	88.5	89.7	89.8	87.3
New York	63.3	77.7	91.5	89.4	90.7	95.4	86.6
Pennsylvania	117.8	128.7	146.5	135.1	133.3	127.2	116.1
East North Central	**137.1**	**159.3**	**175.7**	**164.5**	**158.6**	**150.3**	**136.1**
Illinois	109.4	139.9	164.8	168.9	162.5	161.3	142.1
Indiana	103.5	134.1	159.9	151.5	143.9	140.3	119.7
Michigan	146.4	173.5	189.1	167.7	172.8	155.6	146.7
Ohio	183.0	188.5	193.5	171.2	158.3	147.7	133.1
Wisconsin	92.2	129.0	145.0	139.0	120.8	122.4	115.2
West North Central	**151.0**	**158.9**	**167.9**	**152.6**	**131.3**	**127.7**	**116.6**
Iowa	149.3	162.1	167.8	152.2	127.7	126.8	114.6
Kansas	157.0	156.6	165.8	150.4	126.6	121.5	116.9
Minnesota	145.9	167.3	175.6	159.7	138.9	137.4	122.2
Missouri	149.9	152.0	165.5	148.9	133.2	124.2	113.0
Nebraska	160.5	162.3	167.5	155.2	128.9	130.0	119.1
North Dakota	118.8	164.5	171.4	163.0	127.6	136.2	118.8
South Dakota	145.8	158.5	153.2	145.0	117.4	123.0	112.1
South Atlantic	**93.1**	**95.9**	**111.0**	**96.3**	**93.2**	**88.3**	**84.3**
Delaware	63.7	85.6	109.0	93.6	93.4	88.0	83.0
District of Columbia	79.8	87.8	102.7	95.9	103.5	98.6	95.4
Florida	19.6	27.1	48.2	38.6	40.0	34.1	36.1
Georgia	110.9	103.1	123.9	103.5	96.9	92.6	89.2
Maryland	84.3	95.3	110.6	97.5	96.6	93.9	88.2
North Carolina	78.2	89.8	112.1	92.7	97.1	92.5	86.7
South Carolina	68.8	75.9	91.1	72.7	77.3	67.3	67.0
Virginia	83.4	94.0	111.1	100.1	99.7	95.8	90.8
West Virginia	163.5	159.0	161.0	149.4	131.0	125.3	116.5
East South Central	**118.1**	**111.5**	**126.0**	**107.1**	**102.4**	**93.8**	**89.7**
Alabama	96.6	90.7	106.9	91.2	86.9	81.1	78.7
Kentucky	153.3	144.9	157.4	136.7	130.4	117.1	108.5
Mississippi	97.7	89.0	105.5	86.6	85.9	76.9	77.4
Tennessee	118.6	114.3	126.5	105.5	101.7	94.5	90.4
West South Central	**96.5**	**92.2**	**104.6**	**95.9**	**84.3**	**80.6**	**81.1**
Arkansas	121.7	113.8	133.0	114.0	95.6	101.2	93.1
Louisiana	87.4	82.1	95.9	81.9	77.0	71.8	72.1
Oklahoma	114.9	116.3	126.8	120.6	103.5	103.4	100.2
Texas	91.2	86.3	97.6	91.5	80.2	74.4	77.0
Mountain	**138.2**	**140.2**	**140.5**	**131.0**	**103.9**	**99.8**	**92.7**
Arizona	75.3	77.0	78.4	77.3	59.1	57.9	56.0
Colorado	150.1	153.4	155.0	147.2	119.8	104.6	100.2
Idaho	100.5	118.0	114.7	110.7	79.5	76.7	70.9
Montana	175.9	185.0	175.5	171.2	126.1	128.0	108.5
Nevada	88.8	103.1	112.5	113.2	87.5	98.2	71.7
New Mexico	133.1	134.4	130.3	126.6	99.1	93.0	91.2
Utah	202.4	201.2	212.1	180.1	139.0	142.4	131.4
Wyoming	173.9	173.0	180.5	161.7	128.6	128.6	117.3
Pacific	**92.3**	**104.6**	**105.7**	**109.9**	**81.6**	**80.2**	**73.4**
Alaska	b	230.0	199.3	221.3	216.9	229.9	204.9
California	93.2	105.0	104.6	109.4	80.5	79.1	72.4
Hawaii	25.2	27.2	33.7	29.1	25.0	22.5	22.0
Oregon	78.9	90.6	113.2	107.0	79.8	77.8	69.0
Washington	105.1	115.5	128.3	122.0	95.5	90.8	80.5

[a] Customer data is based on yearly averages.
b. Not available.
R—Revised.

TABLE 10-7
HEATING DEGREE DAYS[a] BY CALENDAR YEAR AND HEATING SEASONS, 1983-1984, AND THIRTY-YEAR NORMALS

	Calendar Year Degree Days			Heating Season Degree Days[b]		
Division and State	30-Year[c] Normals 1951-1980	1982	1983	30-Year[c] Normals 1951/52-1980/81	1982-1983	1983-1984
United States	**4,694**	**4,754**	**4,754**	**3,798**	**3,462**	**3,966**
New England	**6,562**	**6,662**	**6,270**	**5,071**	**4,556**	**5,082**
Connecticut	6,146	6,079	5,786	4,839	4,280	4,819
Maine	7,945	8,244	7,584	5,892	5,411	5,942
Massachusetts	6,322	6,490	6,103	4,913	4,437	4,950
New Hampshire	7,599	7,708	7,177	5,752	5,140	5,718
Rhode Island	5,968	5,955	5,556	4,629	4,079	4,512
Vermont	7,979	8,106	7,876	6,045	5,523	6,168
Middle Atlantic	**5,820**	**5,879**	**5,725**	**4,661**	**4,173**	**4,824**
New Jersey	5,424	5,487	5,321	4,422	3,964	4,549
New York	5,943	6,004	5,763	4,730	4,228	4,841
Pennsylvania	5,881	5,943	5,922	4,708	4,222	4,972
East North Central	**6,375**	**6,537**	**6,418**	**5,131**	**4,467**	**5,493**
Illinois	6,175	6,515	6,353	5,083	4,472	5,499
Indiana	5,871	5,979	5,894	4,815	4,126	5,229
Michigan	6,823	6,944	6,802	5,363	4,667	5,700
Ohio	5,897	5,869	5,888	4,766	4,093	5,122
Wisconsin	7,665	7,981	7,666	6,004	5,318	6,226
West North Central	**6,657**	**7,014**	**6,914**	**5,419**	**4,929**	**5,760**
Iowa	6,932	7,287	7,086	5,663	5,060	5,978
Kansas	4,988	5,297	5,603	4,271	4,093	4,757
Minnesota	8,771	9,143	8,716	6,855	6,180	7,047
Missouri	5,091	5,371	5,506	4,344	3,934	4,783
Nebraska	6,435	6,880	6,899	5,261	4,922	5,723
North Dakota	9,481	10,167	9,265	7,277	6,487	7,168
South Dakota	7,714	8,155	7,884	6,091	5,454	6,377
South Atlantic	**2,999**	**2,840**	**3,170**	**2,603**	**2,401**	**2,711**
Delaware	4,784	4,670	4,576	4,007	3,493	4,157
District of Columbia	d	d	d	d	d	d
Florida	720	481	828	713	679	729
Georgia	2,788	2,535	3,125	2,507	2,376	2,644
Maryland	4,811[e]	4,740[e]	4,777[e]	4,034[e]	3,571[e]	4,207[e]
North Carolina	3,481	3,357	3,725	3,043	2,843	3,138
South Carolina	2,743	2,543	3,049	2,495	2,395	2,567
Virginia	4,327	4,316	4,532	3,661	3,394	3,846
West Virginia	5,250	5,074	5,360	4,270	3,795	4,478
East South Central	**3,555**	**3,357**	**3,892**	**3,109**	**2,865**	**3,387**
Alabama	2,828	2,579	3,260	2,549	2,466	2,793
Kentucky	4,544	4,356	4,748	3,861	3,411	4,140
Mississippi	2,510	2,286	2,916	2,308	2,214	2,615
Tennessee	3,954	3,807	4,275	3,422	3,125	3,710
West South Central	**2,313**	**2,262**	**2,706**	**2,142**	**2,136**	**2,455**
Arkansas	3,327	3,329	3,822	2,991	2,817	3,435
Louisiana	1,794	1,576	2,158	1,703	1,669	1,979
Oklahoma	3,571	3,625	4,095	3,213	3,107	3,627
Texas	2,035	2,005	2,393	1,908	1,957	2,189
Mountain	**5,529**	**5,791**	**5,597**	**4,182**	**4,060**	**4,391**
Arizona	2,313	2,277	2,266	2,037	2,028	1,847
Colorado	7,123	7,460	7,595	5,192	5,133	5,767
Idaho	6,935	7,480	6,741	5,061	4,798	5,430
Montana	8,260	8,803	8,053	5,822	5,250	5,765
Nevada	4,263	4,577	4,148	3,373	3,328	3,258
New Mexico	4,756	4,706	4,807	3,842	3,840	3,826
Utah	6,555	7,098	6,412	4,966	4,751	5,527
Wyoming	8,023	8,472	8,240	5,744	5,440	6,204
Pacific	**3,322**	**3,461**	**3,096**	**2,432**	**2,340**	**2,205**
Alaska	f	f	f	f	f	f
California	2,703	2,832	2,487	2,060	2,013	1,799
Hawaii	f	f	f	f	f	f
Oregon	5,255	5,496	5,068	3,573	3,369	3,462
Washington	5,637	5,764	5,344	3,840	3,553	3,731

a. See glossary for definitions of (heating) degree days. Division heating degree days are the weighted average of all states in a region, according to the 1980 population. National heating degree days are the weighted average of all divisions, according to the 1980 population.

b. Heating season is defined as November through March period.

c. The transference of many weather stations between city locations and nearby airports at some time during the 30 year period has led to the introduction of slight inconsistencies in the average data.

d. Included in Maryland.

e. Includes the District of Columbia.

f. Not available.

Source: National Oceanic and Atmospheric Administraion, *Monthly State, Regional and National Heating Degree Days Weighted by Population.*

TABLE 10-8
GAS UTILITY INDUSTRY AVERAGE ANNUAL CONSUMPTION PER CUSTOMER BY STATE AND CLASS OF SERVICE, 1983[a]

(MMBtu/Customer)

		Class of Service			
Division and State	Total	Residential	Commercial	Industrial	Other
United States	**263.5**	**99.1**	**624.9**	**32,762.4**	**3,000.8**
New England	**178.8**	**85.6**	**607.8**	**10,571.6**	**726.4**
Connecticut	180.3	82.3	692.1	8,491.2	1,069.5
Maine	157.1	43.2	404.5	10,052.0	b
Massachusetts	179.7	86.8	616.3	12,025.8	740.6
New Hampshire	179.5	92.4	534.6	11,284.1	788.5
Rhode Island	161.2	85.8	398.7	7,349.5	b
Vermont	283.1	99.9	594.1	100,470.0	565.0
Middle Atlantic	**183.7**	**95.3**	**538.4**	**19,287.0**	**3,702.0**
New Jersey	178.0	87.3	454.0	16,145.5	6,320.8
New York	148.2	86.6	471.1	12,495.4	3,012.5
Pennsylvania	247.8	116.1	747.4	34,152.4	7,016.8
East North Central	**276.4**	**136.1**	**785.0**	**21,601.7**	**2,202.3**
Illinois	278.2	142.1	826.9	15,528.7	384.7
Indiana	319.3	119.7	591.0	44,528.4	3,065.0
Michigan	279.5	148.7	989.8	19,448.0	264,900.0
Ohio	251.2	133.1	728.4	31,451.0	2,475.2
Wisconsin	277.3	115.2	637.7	16,717.4	17,411.1
West North Central	**264.3**	**116.6**	**683.2**	**30,464.7**	**3,209.9**
Iowa	280.5	114.6	591.9	48,260.5	825.8
Kansas	337.6	116.9	653.4	26,447.1	10,391.3
Minnesota	268.2	122.2	675.4	21,384.5	1,633.5
Missouri	211.0	113.0	855.3	74,271.2	2,501.1
Nebraska	268.0	119.1	544.6	32,469.0	361.0
North Dakota	228.9	118.8	933.5	29,104.9	2,000.0
South Dakota	216.0	112.1	641.7	12,070.8	1,000.0
South Atlantic	**271.0**	**84.3**	**691.2**	**40,951.8**	**1,366.4**
Delaware	291.5	83.0	690.9	56,860.1	18,210.8
District of Columbia	190.5	95.4	1,019.5	b	b
Florida	489.2	36.1	794.1	346,403.0	3,790.9
Georgia	251.6	89.2	724.7	55,831.9	150.4
Maryland	170.2	88.2	590.4	7,931.5	919.7
North Carolina	319.1	86.7	535.0	34,907.9	722.6
South Carolina	310.5	67.0	556.7	50,569.5	788.6
Virginia	244.0	90.8	832.0	20,105.6	3,148.4
West Virginia	256.4	116.5	643.1	115,510.3	1,325.0
East South Central	**294.4**	**89.7**	**540.9**	**55,114.7**	**1,444.0**
Alabama	268.9	78.7	542.7	54,639.7	427.5
Kentucky	232.3	108.5	507.9	39,923.6	4,104.1
Mississippi	363.8	77.4	380.9	86,925.3	2,835.7
Tennessee	350.3	90.4	660.2	47,708.5	577.7
West South Central	**472.1**	**81.1**	**498.7**	**86,327.5**	**5,923.4**
Arkansas	351.1	93.1	467.7	66,940.3	2,555.1
Louisiana	317.0	72.1	381.1	91,597.2	12,963.1
Oklahoma	363.7	100.2	539.5	63,120.2	2,476.3
Texas	566.2	77.0	522.4	92,059.0	4,715.0
Mountain	**222.9**	**92.7**	**581.9**	**32,369.8**	**4,715.7**
Arizona	180.4	56.0	478.5	29,526.2	3,866.5
Colorado	203.7	100.2	641.7	29,315.6	5,026.6
Idaho	269.5	70.9	542.6	79,955.1	b
Montana	229.3	108.5	593.0	23,425.1	37,022.0
Nevada	219.1	71.7	789.9	225,871.8	75,280.0
New Mexico	245.3	91.2	471.7	13,245.7	4,144.3
Utah	259.3	131.4	528.1	74,710.8	11,500.0
Wyoming	338.8	117.3	648.2	112,572.3	1,425.0
Pacific	**201.0**	**73.4**	**555.4**	**21,400.4**	**6,648.1**
Alaska	653.0	204.9	653.3	28,254.8	b
California	193.1	72.4	554.5	22,054.2	6,146.5
Hawaii	96.5	22.0	269.8	1,124.5	b
Oregon	223.4	69.0	436.1	49,254.6	b
Washington	282.7	80.5	660.7	17,931.2	11,743.2

a. Excludes customers purchasing for resale and sales for resale. Customer data is based on yearly averages.

b. No sales reported.

TABLE 10-9
GAS CONSUMPTION BY RESIDENTIAL APPLIANCES, 1982
AVERAGE CONSUMPTION, EXCLUDING EXTREMES

(Therms per year)

	House Range	Apt. Range	Water Heater	Clothes Dryer (gas pilot)	Clothes Dryer (elec.) pilot)	Gas Light	Air Conditioner Consumption Per Ton	Gas Grill	Space Heating		
									Gas Pilot	Elec. Ignition	Pulse Combustion
United States[a]	79	56	267	60	41	150	198	26	760	702	541
New England	117	112	295	69	58	200	b	50	1,063	946	768
Middle Atlantic	94	51	326	57	37	180	339	30	918	869	641
East North Central	69	45	311	72	50	180	155	19	1,249	1,185	896
West North Central	74	61	319	76	57	161	202	21	958	906	670
South Atlantic	98	64	317	85	52	216	262	25	782	736	561[c]
East South Central	76	37	353	83	53	180	400	60	567	540	403[c]
West South Central	104	56	248	77	50	206	400	40	571	543	406[c]
Mountain	66	50	294	81	50	167	163	15	825	684	556[c]
Pacific	83	67	239	48	35	125	150	30	493	440	348[c]

a. United States average consumption figures include several companies which are not included in division averages because no divisional breakout could be made.
b. Not available.
c. Statistical base for this datapoint is not as broad as for others.

SECTION 11
APPLIANCE AND HOUSING DATA

	1983	% Change 83/82
Manufacturer Shipments		
(Thousands of Units)		
Central Heating	1,810	+38.8
Ranges	1,573	+15.0
Water Heaters	3,172	+ 4.3
Clothes Dryers	672	+15.1
New One-Family Houses Completed		
(Thousands of Units)		
Gas Heat	400	+58.7

Note: Certain tables could not be updated because current information was not available.

TABLE 11-1

MANUFACTURER SHIPMENTS OF GAS RANGES, WATER HEATERS AND CLOTHES DRYERS, 1960-1983[a]

(Thousands of units)

Year	Domestic Range Sales			Automatic Domestic Water Heater Sales			Automatic Gas Dryers[e]
	Free-Standing[b]	Built-in	Total	Natural Gas	L.P. Gas	Total	
1960	1,475	339	1,814	2,383	338	2,721	431
1961	1,484	346	1,830	2,448	284	2,732	412
1962	1,621	360	1,981	2,588	288	2,876	475
1963	1,714	358	2,072	2,346	251	2,597	535
1964	1,826	345	2,171	2,482	242	2,724	632
1965	1,976	291	2,267	2,497	240	2,737	710
1966	1,931	232	2,163	2,341	296	2,637	751
1967	1,954	169	2,123	2,246	309	2,555	829
1968	2,102	184	2,286	2,411	345	2,756	876
1969	2,282	189	2,471	2,386	356	2,742	905
1970	2,195	167	2,362	2,404	381	2,785	852
1971	2,363	186	2,549	2,645	443	3,088	847
1972	2,467	194	2,661	2,676	487	3,163	936
1973	2,312	169	2,481	2,568	512	3,080	926
1974	1,825	125	1,950	2,210	359	2,569	739
1975	1,493	125	1,618	2,388	257	2,645	672
1976	1,693	131	1,824	2,695	417	3,112	707
1977	1,615	131	1,746	*c*	*c*	3,158[d]	736
1978	1,665	129	1,794	2,578	343	2,921	757
1979	1,542	129	1,670	2,548	339	2,887	757
1980	1,437	102	1,539	2,498	320	2,818	682
1981	1,401	95	1,496	2,462	324	2,786	639
1982	1,289	79	1,368	2,771	270	3,041	584
1983	1,477	96	1,573	2,953	219	3,172	672

a. Shows shipments by manufacturers, expanded from returns of reporting companies to represent industry-wide coverage. Shipments of appliances for L.P. gas users include those for use by customers obtaining such gas through utility mains, as well as bottled gas users.

b. Free-standing includes free-standing, "set-in" and high-oven ranges.

c. Not available.

d. Estimated.

e. Excludes combination washer-dryer units.

Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1974-1983.

APPLIANCE AND HOUSING DATA

TABLE 11-2

MANUFACTURER SHIPMENTS OF GAS HEATING EQUIPMENT, 1960-1983[a]

(Thousands of units)

Year	Central Heating Equipment				Floor and Wall Furnaces Total	Direct Heating Equipment Total
	Warm Air Furnaces	Conversion Burners	Boilers	Total		
1960	900	132	153	1,185	453	1,211
1961	929	116	168	1,213	467	1,067
1962	1,009	104	175	1,288	515	1,161
1963	1,102	108	184	1,394	525	1,324
1964	1,186	101	199	1,486	555	1,190
1965	1,238	93	200	1,531	501	994
1966	1,213	93	186	1,492	515	1,034
1967	1,146	84	174	1,404	471	920
1968	1,428	79	187	1,694	555	974
1969	1,546	77	176	1,799	576	1,043
1970	1,471	66	164	1,701	545	781
1971	1,795	53	157	2,005	612	783
1972	2,066	40	156	2,262	762	708
1973	1,719	43	147	1,909	652	678
1974	1,476	89	123	1,688	409	488
1975	1,186	39	88	1,313	435	332
1976	1.554	26	113	1.693	523	306
1977	1,508	c	113	1,621	481[R]	193
1978	1,636	c	126	1,762	532	175
1979	1,863	c	221	2,084	365[R]	193
1980	1,446	c	293	1,739	297[R]	222
1981	1,417	c	162	1,579	253[R]	133
1982	1,156	c	148	1,304	260[R]	182
1983	1,662	c	148	1,810	363	203

a. Shows shipments by manufacturers; expanded from returns of reporting companies to represent industry-wide coverage.
b. Includes RV central and wall furnaces.
c. Not available.
R—Revised.
Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, Ten Year Summary, 1974-1983.

TABLE 11-3

MANUFACTURER SHIPMENTS OF RESIDENTIAL GAS APPLIANCES, BY MONTH, 1983

(Thousands of units)

Month	Ranges		Automatic Water Heaters	Dryers[b]	Central Heating	
	Free-Standing[a]	Built-in			Warm Air Furnaces	Boilers
January	100.8	7.3	274.5	52.7	128.9	10.4
February	105.1	6.4	257.0	54.8	119.6	7.9
March	127.0	7.2	287.6	56.6	118.9	8.4
April	121.1	6.3	300.6	45.8	112.5	8.4
May	121.9	7.5	259.1	57.2	101.0	7.0
June	144.7	8.8	265.4	52.4	108.4	9.3
July	96.3	7.8	237.7	42.9	113.4	7.2
August	121.0	7.5	248.4	62.1	145.9	12.6
September	147.3	9.0	239.4	62.5	176.3	18.3
October	128.1	8.4	279.7	68.2	197.1	24.0
November	125.6	8.6	253.3	67.3	167.2	19.9
December	138.1	10.9	269.3	49.5	172.6	14.3
Total	1,477.0	95.7	3,172.0	672.0	1,661.8	147.7

a. Includes "set-in" type ranges, and high oven ranges.
b. Excludes combination washer-dryer units.
Source: Gas Appliance Manufacturers Association, *Statistical Highlights*, March 1984.

TABLE 11-4
MANUFACTURER SHIPMENTS OF GAS RANGES, BY TYPE OF RANGE, 1982

Type of Range	Units (Thousands)	Percentages of Total
Apartment Ranges	178.7	13.1
Standard Ranges[a]	1,037.9	75.9
Total Free Standing Ranges[b]	1,216.6	89.0
High Oven Ranges	72.3	5.3
Total Free Standing and High Oven Ranges	1,288.9	94.3
Built-In Units	78.6	5.7
Total[a]	1,367.5	100.0

a. The above figures exclude gas ranges used in travel trailers and recreational vehicles.
b. Includes "set-in" type ranges.
Source: Gas Appliance Manufacturers Association. *Residential Gas Ranges*, December 1982.

TABLE 11-5
MANUFACTURER SHIPMENTS OF GAS WATER HEATERS, BY SIZE, 1982[a]

Size in Gallons	Total Shipments (Thousands of Units)	Percentage of Total Shipments
Less than 30	36.5	1.2
30-39.9	1,248.1	41.0
40-47.4	1,434.6	47.2
47.5 and over	321.7	10.6
Total	3,040.9	100.0

a. Data not expanded to represent total industry.
Source: Gas Appliance Manufacturers Association. *Residential Gas Automatic Storage Water Heaters*, December 1982.

TABLE 11-6
MANUFACTURER SHIPMENTS OF GAS FURNACES, BY TYPE AND SIZE, 1982

Type	Percentage[a] of Total	Size by Btu Output	Percentage[a] of Total
Gravity	0.0	Less than 50,000	15.7
		50,000-74,999	32.6
Forced Warm Air	100.0	75,000-89,999	27.0
Up-flow	69.3	90,000-134,999	22.4
Counter Flow	11.9	135,000-179,999	2.2
Horizontal	18.8	180,000 and over	0.1
Total	100.0	Total	100.0

a. Based on shipments of 1,555,600 gas fired-forced warm air furnaces.
Source: Gas Appliance Manufacturers Association. *Gas, Oil and Electric Warm Air Furnaces*, December 1982.

TABLE 11-7
MANUFACTURER SHIPMENTS OF GAS-FIRED BOILERS, BY TYPE AND SIZE, 1982

(Percentages)

Btu Output	Steam	Hot Water	Total
Less than 50,000	a	a	a
50,000- 74,999	2.5	16.9	13.8
75,000- 99,999	18.6	26.9	25.1
100,000-124,999	25.3	25.0	25.1
125,000-149,999	14.6	9.9	10.9
150,000-199,999	12.7	8.1	9.1
200,000-249,999	8.3	5.5	6.1
250,000-449,999	9.3	4.2	5.3
450,000-949,999	5.0	2.0	2.6
950,000 and over	3.7	1.5	2.0
Total*	100.0	100.0	100.0

a. Combined with next size to avoid possible disclosure.
*Based on shipments of 31,800 steam boilers and 115,800 hot water boilers, for a total of 147,600 units.
Source: Gas Appliance Manufacturers Association. *Gas, Oil and Electric Boilers*, December 1982.

APPLIANCE AND HOUSING DATA

TABLE 11-8
NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1974-1981

(Thousands of Occupied Units[a])

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**39,481**	**8,412**	**16,827**	**6,111**
Northeast	16,282	5,952	709	9,215	405
North Central	18,993	13,240	1,041	3,148	1,564
South	22,489	11,069	4,584	3,567	3,268
West	13,067	9,220	2,079	897	871
1975					
United States	**72,523**	**40,933**	**9,173**	**16,299**	**6,117**
Northeast	16,508	6,446	802	8,875	386
North Central	19,393	13,666	1,154	3,027	1,546
South	23,105	11,352	4,965	3,508	3,280
West	13,518	9,469	2,253	889	907
1976					
United States	**74,005**	**41,219**	**10,151**	**16,451**	**6,184**
Northeast	16,544	6,140	846	9,161	397
North Central	19,722	13,803	1,366	3,004	1,549
South	23,742	11,449	5,498	3,488	3,307
West	13,998	9,826	2,441	798	933
1977					
United States	**75,280**	**41,543**	**11,146**	**16,060**	**6,531**
Northeast	16,637	6,151	958	9,103	425
North Central	19,855	13,893	1,506	2,843	1,613
South	24,379	11,577	6,033	3,335	3,434
West	14,407	9,922	2,649	778	1,058
1978					
United States	**77,167**	**42,522**	**12,258**	**16,071**	**6,316**
Northeast	16,952	6,301	999	9,252	400
North Central	20,171	14,140	1,685	2,817	1,529
South	25,093	11,956	6,561	3,263	3,313
West	14,951	10,125	3,013	739	1,074
1979					
United States	**78,572**	**43,323**	**13,244**	**15,708**	**6,297**
Northeast	17,122	6,558	1,109	9,056	399
North Central	20,565	14,428	1,864	2,724	1,549
South	25,584	12,054	7,074	3,191	3,265
West	15,301	10,283	3,197	737	1,084
1980					
United States	**80,072**	**44,398**	**14,208**	**14,868**	**6,598**
Northeast	17,264	6,928	1,169	8,685	482
North Central	20,842	14,688	2,036	2,503	1,615
South	26,286	12,290	7,615	3,009	3,372
West	15,680	10,492	3,388	671	1,129
1981					
United States	**83,175**	**46,084**	**15,486**	**14,494**	**7,111**
Northeast	17,851	7,335	1,281	8,642	593
North Central	21,565	15,308	2,211	2,328	1,718
South	27,431	12,725	8,225	2,905	3,576
West	16,328	10,716	3,770	619	1,223

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal, wood and solar heat.
Note: Totals may not add due to rounding.
Source: U.S. Bureau of the Census, Current Housing Reports—Series H-150. *Annual Housing Survey.* Part A: General Housing Characteristics.

TABLE 11-9
NEW ONE FAMILY HOUSES COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1975-1983[a]

(Thousands of Units[a])

Year and Region	Total	Gas	Electricity	Oil	Other/None
1975					
United States	875	347	429	82	18
Northeast	114	27	37	47	3
North Central	218	107	83	20	8
South	362	105	239	14	4
West	182	107	71	b	3
1976					
United States	1,034	407	499	110	19
Northeast	121	18	38	62	4
North Central	271	130	109	26	6
South	410	120	260	22	8
West	232	139	91	b	b
1977					
United States	1,258	476	635	120	28
Northeast	135	22	42	67	5
North Central	300	138	121	30	11
South	512	139	341	23	8
West	311	176	130	b	4
1978					
United States	1,369	511	710	109	40
Northeast	141	23	48	60	11
North Central	300	149	107	32	11
South	571	153	392	16	9
West	357	186	162	b	9
1979					
United States	1,301	512	662	86	41
Northeast	135	32	47	48	7
North Central	294	162	96	22	14
South	535	147	365	14	9
West	337	170	154	b	12
1980					
United States	957	393	483	29	52
Northeast	100	35	36	18	11
North Central	170	101	47	6	16
South	455	136	303	5	11
West	232	121	97	b	14
1981					
United States	819	339	407	16	57
Northeast	87	30	34	11	12
North Central	140	87	37	b	14
South	408	128	262	b	16
West	183	94	74	b	15
1982					
United States	632	252	315	17	48
Northeast	79	28	27	14	10
North Central	92	53	24	3	13
South	340	112	214	b	13
West	121	59	50	b	12
1983					
United States	924	400	448	22	53
Northeast	106	40	38	18	9
North Central	142	92	35	b	13
South	476	163	296	b	15
West	200	105	79	b	16

a. Includes only privately-owned housing units.
b. Withheld because estimate did not meet Bureau of the Census publication standards.
Note: Totals may not add due to rounding.
Source: U.S. Bureau of the Census, Construction Reports – Series C25, *Characteristics of New Housing*, 1983.

TABLE 11-10
UNITS IN NEW MULTIFAMILY BUILDINGS COMPLETED, BY TYPE OF HEATING FUEL AND BY CENSUS REGION, 1975-1983[a]

(Thousands of Units[a])

Year and Region	Total	Gas	Electricity	Oil	Other/None
1975					
United States	442	145	260	30	7
Northeast	72	17	25	24	6
North Central	96	48	47	c	1
South	170	31	133	5	c
West	105	48	56	c	c
1976					
United States	343	113	202	24	3
Northeast	50	11	21	16	2
North Central	84	39	44	1	c
South	103	19	78	6	1
West	106	45	60	c	c
1977					
United States	399	115	261	18	4
Northeast	41	9	20	10	2
North Central	99	39	54	6	c
South	125	16	106	3	c
West	133	51	81	c	1
1978					
United States	498	131	339	24	5
Northeast	41	9	13	18	c
North Central	117	44	70	2	c
South	181	16	161	3	1
West	160	61	95	c	4
1979					
United States	570	150	386	27	6
Northeast	53	11	21	21	c
North Central	121	50	69	2	1
South	227	22	200	4	2
West	169	68	97	c	4
1980					
United States	545	165	362	12	6
Northeast	46	16	20	10	c
North Central	104	46	57	c	1
South	242	36	204	2	c
West	153	67	81	c	5
1981					
United States	447	142	293	7	4
Northeast	40	23	11	5	c
North Central	78	42	36	c	c
South	218	33	184	1	c
West	111	44	63	c	4
1982					
United States	374	103	255	9	7
Northeast	41	15	17	8	1
North Central	51	32	17	c	2
South	199	21	176	c	1
West	82	34	45	c	3
1983					
United States	467	133	327	3	4
Northeast	33	21	9	c	b
North Central	59	37	22	c	1
South	270	31	238	c	1
West	104	44	58	c	3

a. Includes only privately-owned housing units.
b. Fewer than 500 units.
c. Withheld because estimate did not meet Bureau of the Census publication standards.
Note: Totals may not add due to independent rounding.
Source: U.S. Bureau of the Census, Construction Reports—Series C25, *Characteristics of New Housing*, 1983.

TABLE 11-11
NUMBER OF OCCUPIED HOUSING UNITS, BY TYPE OF COOKING FUEL AND BY CENSUS REGION, 1974-1980

(Thousands of Occupied Units[a])

Year and Region	Total	Gas	Electricity	Oil[b]	Other[c]/None
1974					
United States	**70,831**	**31,908**	**32,720**	**82**	**6,120**
Northeast	16,281	9,211	5,747	46	1,277
North Central	18,993	8,908	8,423	14	1,648
South	22,489	7,985	11,797	19	2,688
West	13,067	5,803	6,754	4	506
1975					
United States	**72,523**	**32,493**	**33,944**	**76**	**6,011**
Northeast	16,508	9,244	5,973	27	1,264
North Central	19,393	9,051	8,699	16	1,627
South	23,105	8,229	12,224	31	2,621
West	13,518	5,968	7,048	3	499
1976					
United States	**74,003**	**32,299**	**35,669**	**44**	**5,991**
Northeast	16,545	9,086	6,178	14	1,267
North Central	19,722	8,978	9,165	7	1,572
South	23,741	8,179	12,897	22	2,643
West	13,996	6,057	7,429	1	509
1977					
United States	**75,280**	**32,207**	**37,042**	**45**	**5,986**
Northeast	16,635	9,096	6,280	17	1,242
North Central	19,857	8,857	9,426	14	1,560
South	24,379	8,146	13,563	11	2,659
West	14,408	6,107	7.773	2	526
1978					
United States	**77,167**	**32,576**	**38,779**	**107**	**5,705**
Northeast	16,952	9,185	6,568	44	1,155
North Central	20,171	8,847	9,833	32	1,459
South	25,094	8,242	14,234	24	2,594
West	14,950	6,302	8,144	7	497
1979					
United States	**78,572**	**32,551**	**40,345**	**84**	**5,593**
Northeast	17,123	9,162	6,752	42	1,166
North Central	20,565	8,958	10,180	15	1,413
South	25,585	8,171	14,873	22	2,519
West	15,299	6,258	8,540	6	496
1980					
United States	**80,072**	**32,664**	**41,729**	**152**	**5,528**
Northeast	17,264	9,234	6,828	65	1,138
North Central	20,842	8,898	10,516	30	1,398
South	26,286	8,196	15,531	37	2,521
West	15,680	6,336	8,852	20	471

a. Units include both single-family and multifamily.
b. Oil includes kerosene.
c. Other includes LP gas, coal and wood.
Note: Totals may not add due to rounding.
Sources: For 1974–1977, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*. Part A. For 1978–1980, U.S. Bureau of the Census, Current Housing Reports—Series H-150, *Annual Housing Survey*. Part F: Energy—Related Housing Characteristics.

TABLE 11-12
NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1981

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	83.1	45.6	27.1	6.1	4.3
Northeast	17.9	8.0	3.6	5.7	.6
North Central	21.3	14.5	5.2	.1	1.5
South	27.7	11.9	13.9	.3	1.6
West	16.2	11.2	4.3	c	.7
Clothes Drying					
United States	83.1	12.5	37.5	d	33.2
Northeast	18.0	3.2	6.1	d	8.7
North Central	21.1	4.3	10.2	d	6.6
South	27.8	2.2	13.9	d	11.7
West	16.3	2.8	7.3	d	6.2

NUMBER OF OCCUPIED HOUSEHOLDS BY TYPE OF FUEL USED FOR WATER HEATING AND CLOTHES DRYING, AND BY CENSUS REGION, 1982

(Millions of Households)

Region	Total	Gas	Electricity	Oil[a]	Other[b]/None
Water Heating					
United States	83.8	47.1	26.6	5.7	4.4
Northeast	18.0	8.7	3.7	5.0	.6
North Central	21.2	14.7	5.5	.1	.9
South	27.9	12.4	13.2	.4	1.9
West	16.4	11.3	4.2	.1	.8
Clothes Drying					
United States	83.8	11.3	37.9	d	34.6
Northeast	18.0	2.5	6.9	d	8.6
North Central	21.4	4.0	9.7	d	7.7
South	28.1	2.2	14.2	d	11.7
West	16.5	2.6	7.2	d	6.7

a. Oil includes kerosene.
b. Other includes LP gas, coal, wood and solar.
c. Data withheld because of a large variance.
d. Not applicable.
Note: Totals may not add due to independent rounding.
Source: U.S. Department of Energy, Energy Information Administration, *Residential Energy Consumption Survey: Housing Characteristics.*

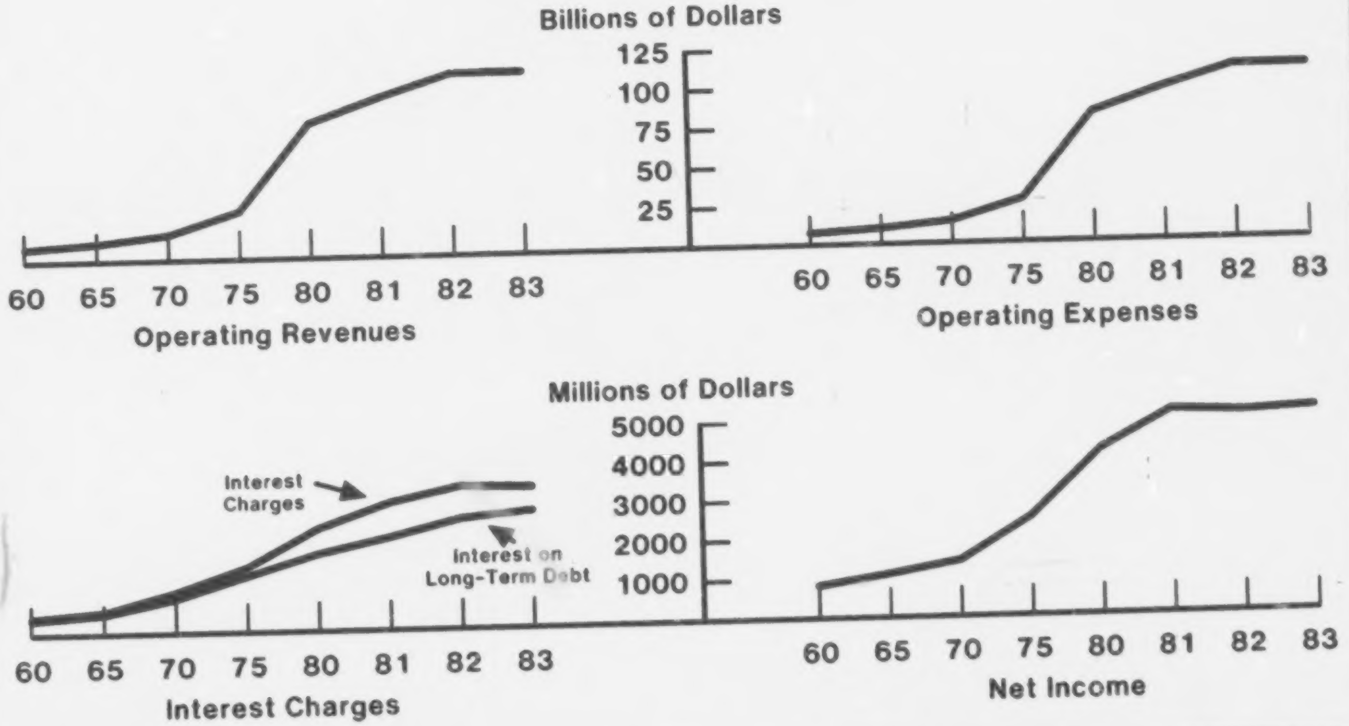
SECTION 12
INCOME ACCOUNTS

	1983	% Change 83/82
Total Operating Revenues		
(Millions)		
Total Industry	$116,096	+ 0.4
Distribution	16,743	+14.3
Transmission	53,577	− 4.1
Integrated	27,125	− 1.3
Combination	18,651	+ 5.4
Net Income		
(Millions)		
Total Industry	$ 5,158	+ 1.7
Distribution	521*	+39.7
Transmission	2,749	− 2.8
Integrated	1,123*	− 1.0
Combination	765	+ 3.9

*Data not directly comparable to previous years.

CHART 12-1

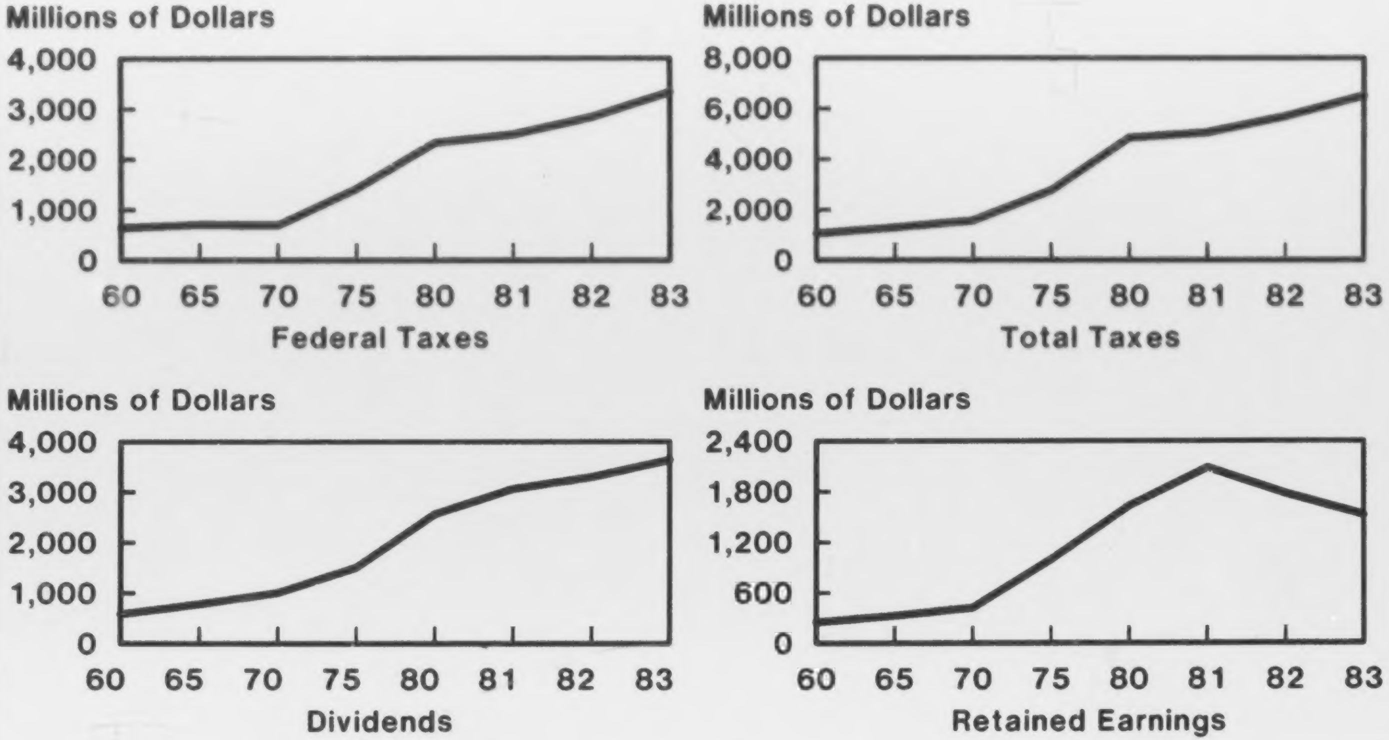
GAS UTILITY INDUSTRY COMPOSITE INCOME ACCOUNTS
(INVESTOR-OWNED)



REFERENCE: TABLE 12-1

CHART 12-2

GAS UTILITY INDUSTRY DISPOSITION OF NET INCOME AND TAXES
(INVESTOR-OWNED)



REFERENCE: TABLE 12-1

TABLE 12-1
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY[a] 1960-1983

(Millions)

	1960	1965	1970	1975	1980	1982[R]	1983
Total Operating Revenues	$8,696	$11,525	$16,380	$30,550	$85,918	$115,673	$116,096
Operation Expenses	5,689	7,657	11,205	22,254	73,288	100,013	98,933
Maintenance Expenses	262	316	431	703	1,220	1,535	1,562
Total Operation and Maintenance Expenses	5,951	7,973	11,636	22,957	74,508	101,548	100,495
Depreciation, Retirements, Depletion, etc.	578	798	1,101	1,760	2,434	3,017	3,139
Federal Income Taxes[b]	540	633	605	965	1,369	1,145	2,007
Provision for Deferred Federal Income Taxes				465	1,949	3,281	2,942
Portion of Current Federal Income Taxes Provided For in Prior Years	79	45	34	(252)	(1,406)	(2,255)	(2,191)
Investment Tax Credit Adjustment	b	b	b	130	213	345	238
Other Federal Taxes	22	27	55	109	202	319	333
State Income Taxes	23	26	46	116	200	216	352
Other State and Local Taxes	394	561	829	1,230	2,320	2,643	2,827
Total Taxes	1,058	1,292	1,569	2,763	4,847	5,694	6,508
Total Operating Expenses	7,587	10,063	14,306	27,480	81,789	110,259	110,142
Operating Income	1,109	1,462	2,074	3,070	4,129	5,414	5,954
Other Operating Income	3	7	12	21	23	23	20
Allowance for Funds Used During Construction	25	34	73	130	319	382	329
Utility Operating Income	1,137	1,503	2,159	3,221	4,471	5,819	6,303
Other Income (Non-Operating) (Net)[c]	110	157	298	916[d]	2,458[d]	2,923[d]	2,414[d]
Income Before Interest Charges	1,247	1,660	2,457	4,137[d]	6,929[d]	8,742[d]	8,717[d]
Interest on Long-Term Debt	374	499	867	1,423	1,961	2,791	2,963
Amortization of Debt Disc. Exp. and Premium	2	5	9	12	15	22	18
Other Interest Expense (Net)	41	49	154	203	622	799	581
Total Interest Charges	417	553	1,030	1,638	2,598	3,612	3,562
Net Income Before Extraordinary Items	e	e	e	2,499[d]	4,331[d]	5,130[d]	5,155[d]
Extraordinary Items, Less Taxes	c	c	c	3	(137)	(58)	3
Net Income	830	1,107	1,427	2,502[d]	4,194[d]	5,072[d]	5,158[d]
Preferred Dividends	69	78	129	184	296	373	433
Common Dividends	512	703	877	1,325	2,268	2,924	3,205
Note:							
Number of Companies Reporting[f]	310	304	291	204	201	191	186
Op. Rev. of Companies Reporting (Millions)	$8,112	$10,751	$15,776	$29,057	$79,896	$105,983	$105,306

a. For combination companies, only gas operations are included.
b. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
c. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
d. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
e. Not available.
f. Financial data of report companies expanded to represent total industry on the basis of operating revenues. As of 1971 total number of sample companies limited to companies with operating revenues over $3,000,000.
( ):Denotes negative.
R—Revised.

INCOME ACCOUNTS

TABLE 12-2
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
DISTRIBUTION COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981[a]	1982	1983[a]
Total Operating Revenues	$8,705	$9,936	$11,767	$14,013	$12,726	$14,653	$16,743
Operation Expenses	6,696	7,766	9,410	11,539	10,727	12,523	14,064
Maintenance Expenses	206	213	233	252	206	217	271
Total Operation and Maintenance Expenses	6,902	7,979	9,643	11,791	10,933	12,740	14,335
Depreciation, Retirements, Depletion, etc.	284	299	315	336	292	314	372
Federal Income Taxes	206	218	209	193	106	123	176
Provision for Deferred Federal Income Taxes	77	91	106	97	112	144	214
Portion of Current Federal Income Taxes Provided For in Prior Years	(26)	(19)	(30)	(42)	(34)	(69)	(70)
Investment Tax Credit Adjustment	35	34	32	53	41	36	35
Other Federal Taxes	35	39	45	50	46	52	62
State Income Taxes	20	25	26	33	32	33	44
Other State and Local Taxes	554	615	668	752	555	624	774
Total Taxes	901	1,001	1,056	1,136	858	943	1,235
Total Operating Expenses	8,087	9,279	11,014	13,263	12,083	13,997	15,942
Operating Income	618	657	753	750	643	656	801
Other Operating Income	1	2	2	3	2	2	2
Allowance for Funds Used During Construction	3	3	5	8	17	16	12
Utility Operating Income	622	662	760	761	662	674	815
Other Income (Non-Operating)(Net)	24	38	56	50	51	76	91
Income Before Interest Charges	646	700	816	811	713	750	906
Interest on Long-Term Debt	225	233	252	279	248	297	323
Amortization of Debt Disc. Exp. and Premium	2	2	2	2	2	2	3
Other Interest Expense (Net)	23	33	48	78	104	80	60
Total Interest Charges	250	267	303	359	354	379	386
Net Income Before Extraordinary Items	396	433	513	452	359	371	520
Extraordinary Items, Less Taxes	4	b	5	1	2	2	6
Net Income	400	433	518	453	361	373	521
Preferred Dividends	23	24	27	30	22	22	31
Common Dividends	259	273	333	330	246	257	329
Note:							
Number of Companies Reporting	53	53	51	56	52	52	53
Op. Rev. of Companies Reporting (Millions)	$8,305	$9,936	$10,747	$12,959	$11,699	$13,407	$15,395

a. Data not directly comparable to previous years due to reclassification of several companies.
b. Less than $500,000.
( ): Denotes negative.

TABLE 12-3
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
TRANSMISSION COMPANIES, 1960-1983

(Millions)

	1960	1965	1970[a]	1975	1980	1982	1983
Total Operating Revenues	$3,190	$4,088	$5,928	$11,898	$41,604	$55,847	$53,577
Operation Expenses	2,031	2,747	4,094	8,463	36,075	49,313	46,496
Maintenance Expenses	64	78	109	187	405	524	523
Total Operation and Maintenance Expenses	2,095	2,825	4,203	8,650	36,480	49,837	47,019
Depreciation, Retirements, Depletion, etc.	284	357	509	896	1,238	1,589	1,583
Federal Income Taxes[b]	163	212	200	646	846	717	1,209
Provision for Deferred Federal Income Taxes				246	1,421	2,345	1,930
Portion of Current Federal Income Taxes Provided For in Prior Years	56	13	(9)	(221)	(1,069)	(1,813)	(1,643)
Investment Tax Credit Adjustment	b	b	b	48	77	112	43
Other Federal Taxes	4	5	11	22	52	95	97
State Income Taxes	8	8	12	52	92	79	150
Other State and Local Taxes	88	117	162	221	572	360	396
Total Taxes	319	355	376	1,014	1,991	1,895	2,182
Total Operating Expenses	2,698	3,537	5,088	10,560	39,709	53,321	50,784
Operating Income	492	551	840	1,338	1,895	2,526	2,793
Other Operating Income	c	c	c	c	3	c	c
Allowance for Funds Used During Construction	11	18	24	38	126	117	43
Utility Operating Income	503	569	864	1,376	2,024	2,643	2,836
Other Income (Non-Operating) (Net)[d]	32	70	190	640[e]	1,755[e]	2,153[e]	1,816[e]
Income Before Interest Charges	535	639	1,054	2,016[e]	3,779[e]	4,796[e]	4,652[e]
Interest on Long-Term Debt	195	237	414	643	979	1,468	1,557
Amortization of Debt Disc. Exp. and Premium	2	4	7	7	8	13	8
Other Interest Expense (Net)	21	20	70	110	325	419	338
Total Interest Charges	218	261	491	760	1,312	1,900	1,903
Net Income Before Extraordinary Items	f	f	f	1,256[e]	2,467[e]	2,896[e]	2,749[e]
Extraordinary Items, Less Taxes	d	d	d	0	(141)	(67)	0
Net Income	317	378	563	1,256[e]	2,326[e]	2,829[e]	2,749[e]
Preferred Dividends	33	38	79	79	142	186	211
Common Dividends	184	258	351	600	1,229	1,591	1,698
Note:							
Number of Companies Reporting	48	47	39	33	39	34	33
Op. Rev. of Companies Reporting (Millions)	$3,092	$3,999	$5,729	$11,192	$37,971	$50,069	$47,123

a. Data not directly comparable to previous years due to reclassification of several companies.
b. "Investment Tax Credit Adjustment" included in "Federal Income Taxes" prior to 1971.
c. Less than $500,000.
d. "Extraordinary Items" included in "Other Income (Non-Operating) (Net)" prior to 1971.
e. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
f. Not available.
( ): Denotes negative.

INCOME ACCOUNTS

TABLE 12-4
COMPOSITE INCOME ACCOUNTS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981[a]	1982	1983[a]
Total Operating Revenues	$9,800	$11,266	$14,439	$17,300	$23,612	$27,481	$27,125
Operation Expenses	7,771	9,155	12,116	14,870	20,076	23,399	22,806
Maintenance Expenses	209	231	265	285	417	455	422
Total Operation and Maintenance Expenses	7,980	9,385	12,381	15,155	20,493	23,854	23,228
Depreciation, Retirements, Depletion, etc.	368	407	464	490	617	671	704
Federal Income Taxes	230	180	24	261	220	160	506
Provision for Deferred Federal Income Taxes	103	153	375	221	350	538	382
Portion of Current Federal Income Taxes Provided For in Prior Years	(46)	(64)	(85)	(194)	(155)	(276)	(258)
Investment Tax Credit Adjustment	43	49	37	47	78	125	84
Other Federal Taxes	35	40	48	53	86	103	100
State Income Taxes	33	46	56	50	60	49	95
Other State and Local Taxes	323	349	401	449	781	930	867
Total Taxes	721	752	857	887	1,420	1,629	1,776
Total Operating Expenses	9,070	10,544	13,702	16,532	22,530	26,154	25,708
Operating Income	730	722	737	768	1,082	1,327	1,417
Other Operating Income	11	9	11	17	22	21	18
Allowance for-Funds Used During Construction	8	10	12	17	18	21	10
Utility Operating Income	749	741	760	802	1,122	1,369	1,445
Other Income (Non-Operating) (Net)	268	257	433	582	771	606	457
Income Before Interest Charges	1,017	998	1,193	1,384	1,893	1,975	1,902
Interest on Long-Term Debt	335	341	356	375	501	606	635
Amortization of Debt Disc. Exp. and Premium	4	3	3	3	3	4	4
Other Interest Expense (Net)	29	54	90	163	239	231	140
Total Interest Charges	368	398	449	541	743	841	779
Net Income Before Extraordinary Items	649	600	744	843	1,150	1,134	1,123
Extraordinary Items, Less Taxes	b	1	63	b	(9)	b	b
Net Income	649	601	807	843	1,141	1,134	1,123
Preferred Dividends	32	35	35	35	49	58	78
Common Dividends	353	366	392	424	618	712	774
Note:							
Number of Companies Reporting	41	43	40	45	48	46	43
Op. Rev. of Companies Reporting (Millions)	$9,317	$10,261	$12,180	$16,020	$22,360	$25,015	$24,309

a. Data not directly comparable to previous years due to reclassification of several companies.
b. Less than $500,000.
( ): Denotes negative.

TABLE 12-5
COMPOSITE INCOME ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY COMBINATION COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981	1982[R]	1983
Gas Operations							
Total Operating Revenues	$ 7,968	$ 8,804	$10,806	$13,001	$15,067	$17,692	$18,651
Operation Expenses	6,179	6,871	8,737	10,804	12,636	14,778	15,567
Maintenance Expenses	236	231	262	278	319	339	346
Total Operations and Maintenance Expenses	6,415	7,102	8,998	11,082	12,955	15,117	15,913
Depreciation, Retirements, Depletion, etc.	313	321	346	370	398	443	480
Federal Income Taxes	85	167	167	69	126	145	116
Provision for Deferred Federal Income Taxes	130	110	121	210	218	254	416
Portion of Current Federal Income Taxes Provided For in Prior Years	(72)	(69)	(85)	(101)	(159)	(97)	(220)
Investment Tax Credit Adjustment	27	25	29	36	38	72	76
Other Federal Taxes	33	37	44	47	62	69	74
State Income Taxes	17	18	22	25	20	55	63
Other State and Local Taxes	438	453	493	547	650	729	790
Total Taxes	658	741	790	833	955	1,227	1,315
Total Operating Expenses	7,386	8,164	10,135	12,285	14,308	16,787	17,708
Operating Income[a]	582	641	671	716	759	905	943
Total Operations							
Total Operating Revenues	$28,781	$30,695	$36,232	$43,822	$51,085	$56,541	$60,883
Operation Expenses	17,213	18,342	22,632	28,511	33,318	35,305	36,987
Maintenance Expenses	1,504	1,672	2,019	2,313	2,561	2,939	3,105
Total Operation and Maintenance Expenses	18,717	20,013	24,651	30,824	35,879	38,244	40,092
Depreciation, Retirements, Depletion, etc.	1,953	2,082	2,349	2,605	2,867	3,299	3,606
Federal Income Taxes	404	470	350	541	811	1,544	1,324
Provision for Deferred Federal Income Taxes	610	833	963	1,369	1,534	1,557	2,431
Portion of Current Federal Income Taxes Provided For in Prior Years	(256)	(379)	(334)	(749)	(915)	(1,080)	(981)
Investment Tax Credit Adjustment	427	430	334	305	478	900	847
Other Federal Taxes	136	152	196	228	296	331	360
State Income Taxes	107	132	140	166	199	365	432
Other State and Local Taxes	2,369	2,422	2,605	2,911	3,266	3,581	3,998
Total Taxes	3,797	4,061	4,253	4,771	5,669	7,198	8,411
Total Operating Expenses	24,467	26,157	31,253	38,200	44,415	48,741	52,109
Operating Income	4,314	4,538	4,979	5,622	6,670	7,800	8,774
Other Operating Income	8	b	b	b	1	2	1
Allowance for Funds Used During Construction	775	887	1,231	1,569	1,833	2,247	2,975
Utility Operating Income	5,097	5,425	6,209	7,191	8,504	10,049	11,750
Other Income (Non-Operating)(Net)	179	247	302	496	605	625	478
Income before Interest Charges	5,276	5,672	6,511	7,687	9,109	10,674	12,228
Interest on Long-Term Debt	2,104	2,238	2,594	3,039	3,544	4,052	4,615
Amortization of Debt Disc. Exp. and Premium	12	14	15	15	21	28	35
Other Interest Expense (Net)	103	119	188	453	620	567	410
Total Interest Charges	2,219	2,370	2,796	3,507	4,185	4,647	5,060
Net Income Before Extraordinary Items	3,057	3,302	3,715	4,180	4,924	6,027	7,168
Extraordinary Income Less Taxes	0	0	0	11	1	41	9
Net Income	3,057	3,302	3,715	4,191	4,925	6,068	7,177
Preferred Dividends	591	637	708	801	891	986	1,073
Common Dividends	1,630	1,828	2,183	2,575	2,957	3,526	4,188
Note:							
Number of Companies Reporting	60	61	58	61	60	59	57
Total Op. Revenues of Companies Reporting (Millions)	$27,803	$30,370	$34,771	$43,636	$50,989	$55,901	$60,231
Gas Revenues of Companies Reporting (Millions)	$ 7,697	$ 8,711	$10,370	$12,946	$15,039	$17,492	$18,479

a. Includes "Other Operating Income" which was less than $500,000 in each year.
b. Less than $500,000.
( ): Denotes negative.
R—Revised.

INCOME ACCOUNTS

TABLE 12-6
INVESTOR-OWNED GAS UTILITY INDUSTRY GAS OPERATION AND MAINTENANCE EXPENSES BY TYPE OF COMPANY, 1982-1983

(Millions)

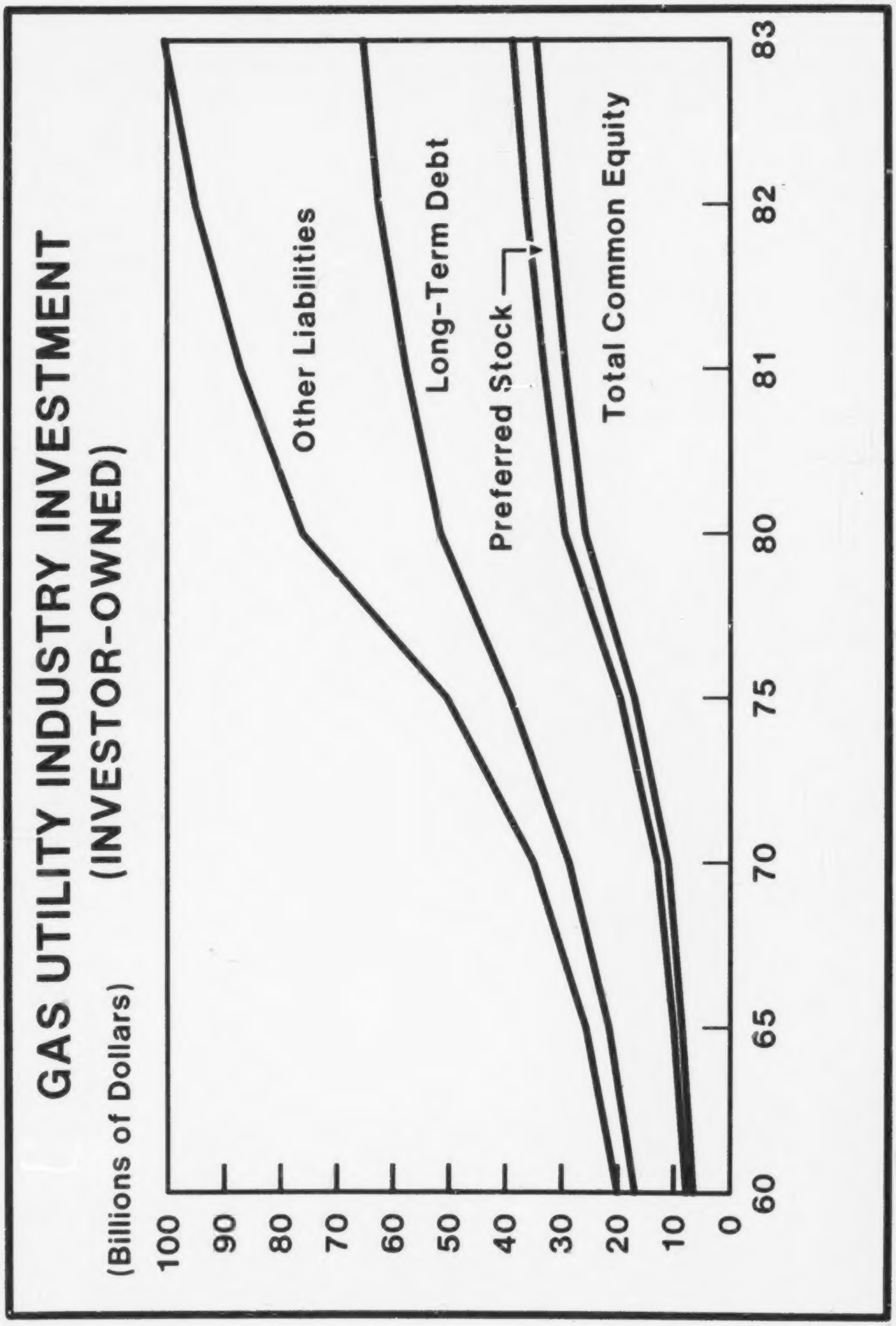
	1982[R]		1983	
Total Industry Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 89,487	$ 0	$86,776	$ 0
Other Production and Purch. Exp. and Adjustments	388	194	1,378	189
Production and Purchases, Total	89,875	194	88,154	189
Storage	553	85	570	94
Transmission	3,603	452	3,673	447
Distribution	1,170	748	1,247	770
Customer accounts	1,292	a	1,400	a
Sales	97	a	107	a
Administrative and General	3,159	56	3,413	62
Customer Service	264	a	369	a
Total	100,013	1,535	98,933	1,562
Distribution Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 11,075	$ 0	$12,336	$ 0
Other Production and Purch. Exp. and Adjustments	128	7	110	9
Production and Purchases, Total	11,203	7	12,446	9
Storage	35	5	31	8
Transmission	1	1	3	1
Distribution	338	195	394	241
Customer accounts	394	a	486	a
Sales	37	a	42	a
Administrative and General	463	9	601	12
Customer Service	52	a	61	a
Total	12,523	217	14,064	271
Transmission Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 44,962	$ 0	$41,199	$ 0
Other Production and Purch. Exp. and Adjustments	(134)	121	738	118
Production and Purchases, Total	44,828	121	41,937	118
Storage	327	36	352	37
Transmission	2,964	360	2,973	360
Distribution	5	a	a	a
Customer accounts	7	a	9	0
Sales	9	0	10	0
Administrative and General	1,169	7	1,211	5
Customer Service	4	0	4	0
Total	49,313	524	46,496	523
Integrated Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 20,520	$ 0	$19,645	$ 0
Other Production and Purch. Exp. and Adjustments	220	[illegible]	392	46
Production and Purchases, Total	20,740	[illegible]	20,037	46
Storage	130	32	132	37
Transmission	556	72	617	66
Distribution	426	283	430	254
Customer accounts	498	a	488	a
Sales	42	a	45	0
Administrative and General	886	19	903	19
Customer Service	121	0	154	0
Total	23,399	455	22,806	422
Combination Companies Type of Expense	Operation	Maintenance	Operation	Maintenance
Purchased Gas Cost and Production Exp.	$ 12,930	$ 0	$13,596	$ 0
Other Production and Purch. Exp. and Adjustments	174	17	138	16
Production and Purchases, Total	13,104	17	13,734	16
Storage	61	12	55	12
Transmission	82	19	80	20
Distribution	401	270	423	275
Customer accounts	393	0	417	0
Sales	9	0	10	0
Administrative and General	641	21	698	23
Customer Service	87	0	150	0
Total	14,778	339	15,567	346

a. Less than $500,000.
R – Revised.

SECTION 13
BALANCE SHEETS

	1983	% Change 83/82
Gas Utility Plant (Millions)		
Total Industry	$82,038	+ 4.5
Distribution	11,042	+13.2
Transmission	37,327	+ 4.3
Integrated	19,284	+ 0.5
Combination	14,385	+ 4.5
Total Common Equity (Millions)		
Total Industry	$34,283	+ 7.1
Distribution	3,503	+17.8
Transmission	18,760	+ 5.5
Integrated	8,187	+ 7.8
Combination	3,833	+ 4.6

CHART 13-1



GAS UTILITY INDUSTRY INVESTMENT
(INVESTOR-OWNED)

REFERENCE: TABLE 13-1

BALANCE SHEETS

TABLE 13-1
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY TOTAL INDUSTRY, 1960-1983

(Millions)

	1960	1965	1970	1975	1980	1982[R]	1983
ASSETS							
Total Gas Utility Plant	$20,835	$28,205	$38,541	$49,384	$67,071	$78,479	$82,038
Less Accum. Prov. for Depr. and Amort.	4,570	7,205	10,696	16,779	26,162	31,388	34,208
Net Gas Utility Plant (Total)	16,265	21,000	27,845	32,605	40,909	47,091	47,830
Investment and Fund Accounts	1,380	1,885	3,024	9,198[a]	15,530[a]	20,750[a]	21,531[a]
Current and Accrued Assets	2,185	2,545	3,674	7,543	17,243	23,576	27,571
Deferred Debits[b]	170	210	386	940	2,169	3,586	3,567
Total Assets	20,000	25,640	34,929	50,286[a]	75,851[a]	95,003[a]	100,499[a]
LIABILITIES							
Common Stock	3,540	4,360	4,727	5,803	6,968	7,723	7,703
Retained Earnings	1,880	2,715	4,230	7,911[a]	13,122[a]	17,279[a]	18,411[a]
Other Paid-in Capital[c]	1,045	1,390	2,063	3,245	5,597	7,008	8,169
Total Common Equity	6,465	8,465	11,020	16,959[a]	25,687[a]	32,010[a]	34,283[a]
Preferred Stock	1,345	1,540	1,945	2,541	3,628	4,151	4,205
Total Capital Stock	7,810	10,005	12,965	19,500[a]	29,315[a]	36,161[a]	38,488[a]
Bonds	6,265	7,525	9,248	10,493	9,574	9,433	9,246
Debentures	1,445	2,560	4,274	5,174	5,819	8,430	9,117
Other Long-Term Debt	1,420	1,430	2,159	3,877	6,674	8,367	8,189
Total Long-Term Debt	9,130	11,515	15,681	19,544	22,067	26,230	26,552
Total Capitalization	16,940	21,520	28,646	39,044[a]	51,382[a]	62,391[a]	65,040[a]
Current and Accrued Liabilities	2,420	3,035	4,832	8,158	18,119	23,809	25,151
Deferred Credits	85	215	370	752	1,683	2,798	3,391
Operating Reserves	110	55	48	194	428	424	288
Contributions in Aid of Construction	95	155	245	86	90	108	117
Reserves for Deferred Income Taxes	350	660	788	207	480	511	534
Accumulated Deferred Income Taxes				1,845	3,669	4,962	5,978
Total Liabilities	20,000	25,640	34,929	50,286[a]	75,851[a]	95,003[a]	100,499[a]

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Includes "Capital Stock Discount and Expense" and "Reacquired Securities."
c. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."
R—Revised.

TABLE 13-2
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY DISTRIBUTION COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981[a]	1982	1983[a]
ASSETS							
Total Gas Utility Plant	$9,153	$9,619	$10,166	$10,990	$9,188	$9,755	$11,042
Less Accum. Prov. for Depr. and Amort.	2,465	2,690	2,892	3,174	2,799	3,067	3,558
Net Gas Utility Plant (Total)	6,688	6,929	7,274	7,816	6,389	6,688	7,484
Investment and Fund Accounts	286	356	464	459	454	523	564
Current and Accrued Assets	1,850	1,935	2.454	3,086	2,877	3.043	3,890
Deferred Debits	126	167	191	129	105	192	214
Total Assets	8,950	9,387	10,383	11,490	9,825	10.446	12,152
LIABILITIES							
Common Stock	1,042	1,064	1,108	1,119	837	925	974
Retained Earnings	1,246	1,388	1,531	1,630	1,349	1,425	1,669
Other Paid-in Capital	489	485	519	556	554	623	860
Total Common Equity	2.777	2,937	3,158	3,305	2,740	2,973	3,503
Preferred Stock	299	355	378	412	257	268	338
Total Capital Stock	3,076	3,292	3,536	3,717	2,997	3,241	3,841
Bonds	2,297	2,228	2,125	2,210	1,686	1,666	1,928
Debentures	145	127	121	98	126	123	309
Other Long-Term Debt	630	701	874	848	764	979	795
Total Long-Term Debt	3,072	3,056	3,120	3,156	2,576	2,768	3,032
Total Capitalization	6,148	6,348	6,656	6,873	5,573	6,009	6,873
Current and Accrued Liabilities	2,018	2,125	2,701	3,384	3,168	3,201	3,767
Deferred Credits	272	302	350	461	407	470	570
Operating Reserves	17	20	23	28	19	18	22
Contributions in Aid of Construction	44	51	54	65	57	60	62
Reserves for Deferred Income Taxes	168	338	392	427	323	318	340
Accumulated Deferred Income Taxes	283	203	207	252	278	370	518
Total Liabilities	8,950	9,387	10,383	11,490	9,825	10,446	12,152

a. Data not directly comparable to previous years due to reclassification of several companies.

BALANCE SHEETS

TABLE 13-3
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY TRANSMISSION COMPANIES, 1960-1983

(Millions)

	1960	1965	1970[a]	1975	1980	1982	1983
ASSETS							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$35,774	$37,327
Less Accum. Prov. for Depr. and Amort.	2,040	3,375	5,311	8,636	14,361	17,227	18,895
Net Gas Utility Plant (Total)	6,920	8,130	11,052	11,714	15,973	18,547	18,432
Investment and Fund Accounts	870	1,060	1,889	6,791[b]	11,998[b]	15,060[b]	15,400[b]
Current and Accrued Assets	840	950	1,384	3,459	8,432	13,153	15,903
Deferred Debits[c]	65	100	192	516	1,371	2,280	2,294
Total Assets	8,695	10,240	14,517	22,480[b]	37,774[b]	49,040[b]	52,029[b]
LIABILITIES							
Common Stock	1,105	1,225	1,477	1,984	2,610	3,080	2,859
Retained Earnings	665	815	1,430	4,010[b]	7,984[b]	10,502[b]	11,371[b]
Other Paid-in Capital[d]	570	770	1,233	1,891	3,414	4,196	4,530
Total Common Equity	2,340	2,810	4,140	7,885[b]	14,008[b]	17,778[b]	18,760[b]
Preferred Stock	640	715	1,019	1,012	1,734	2,054	2,054
Total Capital Stock	2,980	3,525	5,159	8,897[b]	15,742[b]	19,832[b]	20,814[b]
Bonds	3,030	3,060	3,458	3,125	2,398	1,816	1,244
Debentures	770	1,545	2,569	3,124	3,732	5,784	6,216
Other Long-Term Debt	590	420	841	2,167	4,114	5,025	5,103
Total Long-Term Debt	4,390	5,025	6,868	8,415	10,244	12,625	12,663
Total Capitalization	7,370	8,550	12,027	17,312[b]	25,986[b]	32,457[b]	33,477[b]
Current and Accrued Liabilities	1,005	1,200	1,974	3,802	9,067	12,665	13,600
Deferred Credits	10	65	147	295	495	1,038	1,541
Operating Reserves	65	15	14	113	174	113	173
Contributions in Aid of Construction	15	20	14	0	0	0	0
Reserves for Deferred Income Taxes	230	390	341	2	5	5	8
Accumulated Deferred Income Taxes			-	957	2,047	2,762	3,230
Total Liabilities	8,695	10,240	14,517	22,480[b]	37,774[b]	49,040[b]	52,029[b]

a. Data for prior years not directly comparable to later years due to reclassification of several companies.

b. Not comparable with 1970 and prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.

c. Includes "Capital Stock Discount and Expense."

d. Includes accounts formerly detailed in "Premiums, Assessments, etc." and "Capital Surplus."

TABLE 13-4
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY INTEGRATED COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981[a]	1982	1983[a]
ASSETS							
Total Gas Utility Plant	$11,881	$12,659	$13,551	$13,756	$17,776	$19,190	$19,284
Less Accum. Prov. for Depr. and Amort.	4,091	4,472	4,725	4,913	6,102	6,631	6,902
Net Gas Utility Plant (Total)	7,790	8,187	8,826	8,843	11,674	12,559	12,382
Investment and Fund Accounts	2,109	2,175	2,603	2,856	3,702	4,833	5,192
Current and Accrued Assets	2,223	2,623	3,558	4,456	5,127	5,975	6,371
Deferred Debits	228	304	384	453	517	773	628
Total Assets	12,350	13,289	15,370	16,608	21,020	24,140	24,573
LIABILITIES							
Common Stock	1,638	1,676	1,758	1,916	2,293	2,232	2,351
Retained Earnings	2,193	2,231	2,484	2,440	3,420	4,107	4,056
Other Paid-in Capital	626	818	825	906	1,120	1,255	1,780
Total Common Equity	4,457	4,726	5,067	5,262	6,833	7,594	8,187
Preferred Stock	330	418	448	423	606	722	690
Total Capital Stock	4,787	5,144	5,515	5,685	7,439	8,316	8,877
Bonds	1,887	1,714	1,667	1,605	2,247	2,331	2,386
Debentures	1,800	1,709	1,763	1,891	2,194	2,448	2,526
Other Long-Term Debt	708	849	1,163	1,329	1,429	1,810	1,611
Total Long-Term Debt	4,395	4,272	4,593	4,825	5,870	6,589	6,523
Total Capitalization	9,182	9,416	10,108	10,510	13,309	14,905	15,400
Current and Accrued Liabilities	2,213	2,678	3,852	4,454	5,627	6,625	6,517
Deferred Credits	246	328	328	381	561	785	728
Operating Reserves	91	142	146	220	104	283	83
Contributions in Aid of Construction	11	15	19	21	37	43	50
Reserves for Deferred Income Taxes	50	62	70	47	185	188	186
Accumulated Deferred Income Taxes	557	648	847	975	1,197	1,311	1,609
Total Liabilities	12,350	13,289	15,370	16,608	21,020	24,140	24,573

a. Data not directly comparable to previous years due to company reclassification.

BALANCE SHEETS

TABLE 13-5
COMPOSITE BALANCE SHEET ACCOUNTS INVESTOR-OWNED GAS UTILITY INDUSTRY COMBINATION COMPANIES, 1977-1983

(Millions)

	1977	1978	1979	1980	1981	1982[R]	1983
ASSETS							
Total Gas Utility Plant	$10,186	$10,408	$11,340	$ 11,991	$ 12,846	$ 13,760	$ 14,385
Less Accum. Prov. for Depr. and Amort.	2,908	3,058	3,447	3,714	4,030	4,463	4,853
Net Gas Utility Plant (Total)	7,278	7,349	7,894	8,277	8,816	9,297	9,532
Electric Utility Plant	68,666	73,616	84,564	94,579	103,460	114,620	130,259
Less Accum. Prov. for Depr. and Amort.	14,223	15,531	17,898	20,174	22,477	24,838	27,787
Net Electric Utility Plant (Total)	54,443	58,084	66,666	74,405	80,983	89,782	102,472
Other	2,260	2,401	2,770	3,614	3,950	4,366	4,759
Less Accum. Prov. for Depr. and Amort.	644	690	797	958	1,062	1,195	1,331
Net Other (Total)	1,616	1,711	1,974	2,656	2,888	3,171	3,428
Investment and Fund Accounts	1,219	1,499	1,944	1,998	2,647	3,224	3,894
Current and Accrued Assets	7,924	8,305	10,109	11,659	12,562	13,556	14,615
Deferred Debits	972	1,001	1,715	1,983	2,597	3,284	4,474
Total Assests	73,452	77,949	90,301	100,978	110,493	122,314	138,415
LIABILITIES							
Common Stock	9,726	10,309	12,360	13,386	13,997	15,974	17,899
Retained Earnings	8,277	8,925	9,807	10,803	11,880	13,382	15,493
Other Paid-in Capital	5,031	5,593	5,932	7,301	8,686	10,047	11,777
Total Common Equity	23,034	24,826	28,099	31,490	34,483	39,403	45,169
Preferred Stock	8,403	8,765	9,739	10,719	11,244	11,903	13,234
Total Capital Stock	31,437	33,592	37,837	42,209	45,727	51,306	58,403
Bonds	27,933	28,561	31,252	34,010	35,632	38,912	42,284
Debentures	743	773	1,025	990	787	805	785
Other Long-Term Debt	1,853	2,392	3,186	3,871	4,889	5,947	8,010
Total Long-Term Debt	30,529	31,726	35,464	38,871	41,308	45,664	51,079
Total Capitalization	61,966	65,318	73,301	81,080	87,035	96,970	109,482
Current and Accrued Liabilities	7,055	7,505	10,517	12,286	14,338	14,172	14,929
Deferred Credits	1,931	2,288	2,970	3,506	4,126	5,427	6,508
Operating Reserves	45	57	81	58	67	108	113
Contribution in Aid of Construction	19	20	26	38	50	52	57
Reserves for Deferred Income Taxes	535	475	529	8	4	4	4
Accumulated Deferred Income Taxes	1,901	2,286	2,878	4,002	4,873	5,581	7,322
Total Liabilities	73,452	77,949	90,301	100,978	110,493	122,314	138,415

R – Revised.

TABLE 13-6
TOTAL GAS UTILITY INDUSTRY PLANT BY TYPE OF COMPANY AND BY PLANT FUNCTION, 1960-1983

(Millions)

	1960	1965	1970	1975	1980	1982[R]	1983
Total Industry							
Total Gas Utility Plant	$21,525	$29,175	$39,914	$51,004	$69,275	$80,332	$83,956
Production	2,925	3,180	3,657	4,776	8,199	10,329	10,950
Underground Storage	755	1,200	1,816	2,697	4,529	5,374	5,534
Other Storage	a	a	a	700	672	728	713
LNG	c	c	c	c	284	340	345
Transmission	9,410	12,435	17,188	20,530	25,418	30,135	31,657
Distribution	7,275	10,660	15,056	19,151	24,923	27,847	29,572
General and Intangible[b]	835	1,090	1,518	2,226	3,470	4,404	4,341
Construction Work in Progress	325	610	679	924	1,780	1,175	844
Total Investor-Owned Industry							
Total Gas Utility Plant	$20,835	$28,205	$38.541	$49,384	$67,071	$78,479	$82,038
Production	2,835	3,055	3,529	4,687	8,019	10,161	10,802
Underground Storage	755	1,190	1,770	2,639	4,451	5,350	5,511
Other Storage	a	a	a	648	632	643	618
LNG	c	c	c	c	273	319	325
Transmission	9,405	12,425	17,170	20,307	25,298	30,094	31,614
Distribution	6,750	9,935	13,989	18,080	23,343	26,626	28,290
General and Intangible[b]	785	1,020	1,451	2,125	3,334	4,147	4,070
Construction Work in Progress	305	580	632	896	1,721	1,139	808
Distribution Companies							
Total Gas Utility Plant	c	c	c	$8,547	$10,990	$ 9,755[d]	$11,042[d]
Production	c	c	c	387	539	250	306
Underground Storage	c	c	c	460	627	466	465
Other Storage	c	c	c	172	140	118	132
LNG	c	c	c	c	91	14	57
Transmission	c	c	c	425	338	128	142
Distribution	c	c	c	6,452	8,569	8,048	9,119
General and Intangible[b]	c	c	c	479	599	657	740
Construction Work in Progress	c	c	c	173	87	74	81
Transmission Companies							
Total Gas Utility Plant	$8,960	$11,505	$16,363	$20,351	$30,334	$35,774	$37,327
Production	1,430	1,570	1,842	2,650	5,098	6,156	6,738
Underground Storage	280	325	668	1,299	2,340	2,954	3,013
Other Storage	a	a	a	113	175	176	147
LNG	c	c	c	c	160	192	195
Transmission	6,880	9,040	13,238	15,322	20,194	23,918	25,336
Distribution	35	5	2	5	7	0	0
General and Intangible[b]	220	260	330	587	1,204	1,723	1,581
Construction Work in Progress	115	305	283	375	1,156	655	317
Integrated Companies							
Total Gas Utility Plant	c	c	c	$10,960	$13,756	$19,190[d]	19,284[d]
Production	c	c	c	1,240	1,914	3,231	3,221
Underground Storage	c	c	c	531	961	1,352	1,418
Other Storage	c	c	c	62	103	127	121
LNG	c	c	c	c	14	105	65
Transmission	c	c	c	3,418	3,308	4,148	4,280
Distribution	c	c	c	4,809	6,191	8,851	8,843
General and Intangible[b]	c	c	c	748	1,029	1,158	1,131
Construction Work in Progress	c	c	c	151	236	218	205
Combination Companies							
Total Gas Utility Plant	c	c	c	$9,526	$11,991	$13,760	$14,385
Production	c	c	c	410	468	524	537
Underground Storage	c	c	c	348	523	578	615
Other Storage	c	c	c	301	214	222	218
LNG	c	c	c	c	8	8	8
Transmission	c	c	c	1,144	1,458	1,900	1,856
Distribution	c	c	c	6,816	8,576	9,727	10,328
General and Intangible[b]	c	c	c	310	502	609	618
Construction Work in Progress	c	c	c	197	242	192	205

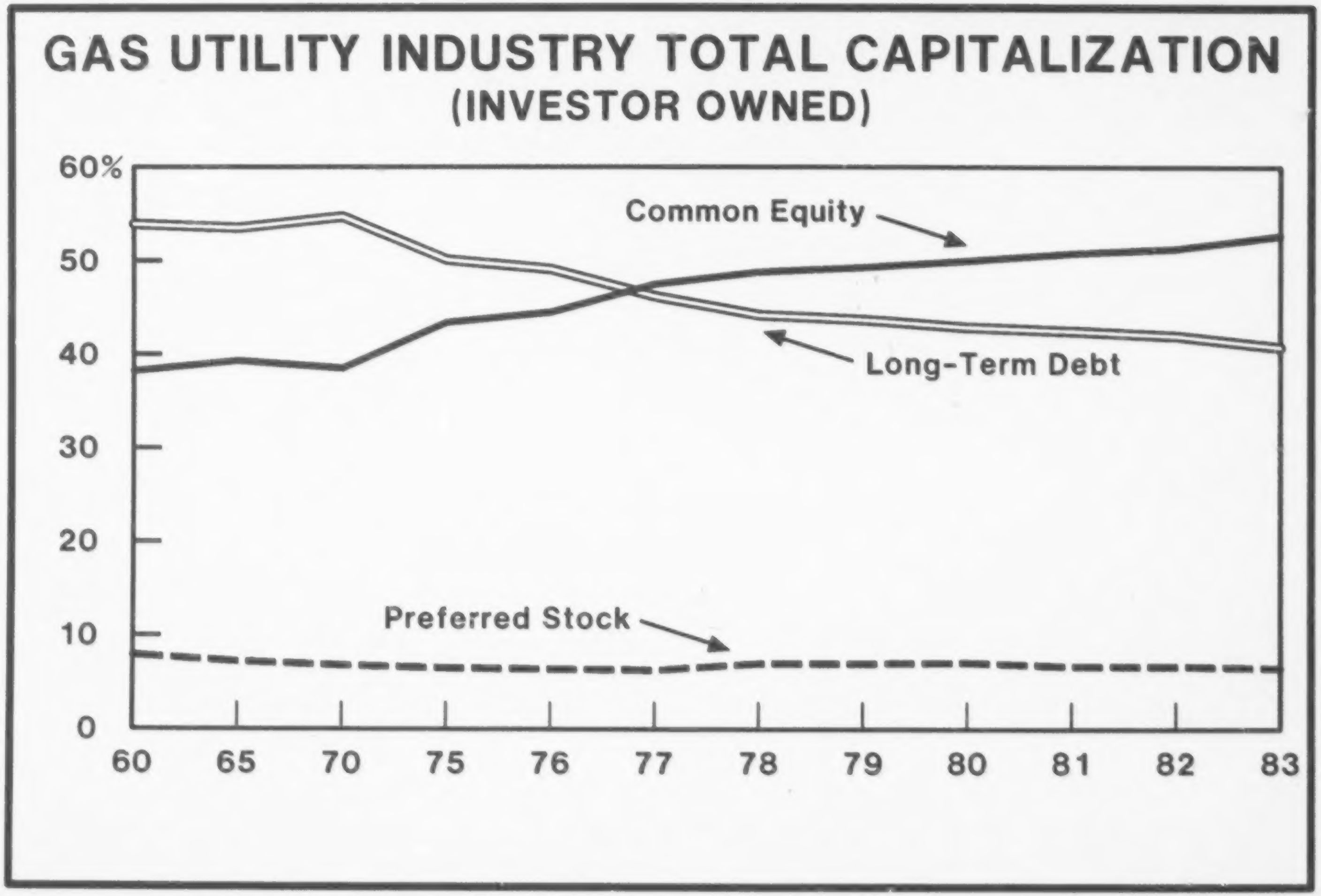
a. Included in "Production."
b. Includes plant acquisition adjustments and plant adjustments.
c. Not available.
d. Data not directly comparable to previous years due to company reclassification.
R—Revised.

SECTION 14
ANALYTICAL RATIOS

	1983	% Change 83/82
Capitalization Represented by (%)		
Long-term Debt	40.8	− 2.9
Preferred Stock	6.5	− 3.0
Common Equity	52.7	+ 2.7

The analytical ratios in this section have been calculated on a consistent basis for all years. These ratios are considered to be an acceptable set of indicators which provide trends on the condition of the investor-owned gas utility industry. Please contact the statistics department at A.G.A. for details of the formulas used to calculate these analytical ratios.

CHART 14-1



GAS UTILITY INDUSTRY TOTAL CAPITALIZATION
(INVESTOR OWNED)

REFERENCE: TABLE 14-1

ANALYTICAL RATIOS

TABLE 14-1
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY
TOTAL INDUSTRY, 1960-1983

	1960	1965	1970	1975	1980	1982[R]	1983
Earnings							
Utility Operating Income as % of Total Plant	5.5	5.3	5.6	6.5	6.7	7.4	7.7
Utility Operating Income as % of Net Plant	7.0	7.2	7.8	9.9	10.9	12.4	13.3
Operating Revenue as % of Total Plant	41.7	40.9	42.5	61.9	128.1	149.4	141.5
Common Dividend Payout Ratio	67.3	68.3	67.6	57.2[a]	58.2[a]	62.2[a]	67.8[a]
Return on Common Equity	11.8	12.2	11.8	13.7[a]	15.2[a]	14.7[a]	13.8[a]
Return on Average Common Equity	12.2	12.5	12.2	14.3	15.8	15.4	14.3
Return on Net Plant	4.7	4.9	4.7	7.1	9.5	10.0	9.9
Pretax Coverage of:							
Total Interest Expense[d]	4.5	4.2	3.0	3.3	3.5	3.1	3.3
Long-Term Debt Interest Expense[d]	5.0	4.7	3.6	3.8	4.6	4.0	4.0
Allowance for Funds Used During Construction as % of Net Income	3.0	3.1	5.1	5.2	7.6	7.5	6.4
Expenses							
Operating Expenses as % of Operating Revenue	87.2	87.3	87.3	90.0	95.2	95.3	94.9
Maintenance Expenses as % of Total Plant	1.3	1.1	1.1	1.4	1.8	2.0	1.9
Depreciation Expenses as % of Total Plant	2.8	2.8	2.9	3.6	3.6	3.8	3.8
Depreciation Expenses as % of Depreciable Plant	b	b	b	3.6	4.1	4.0	4.0
Total Taxes as % of Total Plant	5.1	4.6	4.1	5.6	7.2	7.3	7.9
Total Taxes as % of Net Plant	6.5	6.2	5.6	8.5	11.8	12.1	13.6
Total Taxes as % of Net Income plus Total Taxes	56.0	52.4	52.5	53.9[a]	53.6[a]	52.9[a]	55.8[a]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[c]	39.4	36.4	29.8	30.4[a]	27.4[a]	22.7[a]	30.3[a]
Plant							
Total Plant as % of Total Operating Revenue	239.6	244.7	235.3	161.6	78.1	67.8	70.7
Net Plant as % of Total Operating Revenue	187.0	182.2	170.0	106.7	47.6	40.7	41.2
Depreciation Reserve as % of Total Plant	21.9	25.5	27.8	34.0	39.0	40.0	41.7
Depreciation Reserve as % of Depreciable Plant	b	b	b	35.8	44.0	42.0	43.9
Total Plant per Employee ($000)	100.9	137.1	182.1	251.6	328.1	364.0	383.3
Capitalization							
Long-term Debt as % of Net Plant	56.1	54.8	56.3	59.4	53.9	55.7	55.5
% Total Capitalization Represented by:							
a. Long-term Debt	53.9	53.5	54.7	50.1	42.9	42.0	40.8
b. Preferred Stock	7.9	7.2	6.8	6.5	7.1	6.7	6.5
c. Common Equity	38.2	39.3	38.5	43.4	50.0	51.3	52.7
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	b	b	b	53.8	55.3	55.5	66.5
b. Equity Issues	b	b	b	11.9	11.2	9.3	8.1
c. Debt Issues	b	b	b	34.3	33.5	35.2	25.4

a. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
b. Not available.
c. Includes "Investment Tax Credit Adjustment."
d. Changed to reflect pre-federal income tax coverage.
R—Revised

TABLE 14-2
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY DISTRIBUTION COMPANIES, 1977-1983

	1977	1978	1979	1980	1981[a]	1982[R]	1983[a]
Earnings							
Utility Operating Income as % of Total Plant	6.8	6.9	7.5	6.9	7.2	6.9	7.4
Utility Operating Income as % of Net Plant	9.2	9.6	10.4	9.7	10.4	10.0	10.9
Operating Revenue as % of Total Plant	95.1	103.3	115.7	127.5	138.5	150.2	151.6
Common Dividend Payout Ratio	68.7	66.7	67.8	78.0	72.6	73.2	67.1
Return on Common Equity	13.6	13.9	15.5	12.8	12.4	11.8	14.0
Return on Average Common Equity	13.8	14.3	16.1	13.1	12.9	12.3	15.1
Return on Net Plant	5.6	5.9	6.8	5.4	5.3	5.2	6.6
Pretax Interest Coverage of:							
Total Interest Expense[c]	3.8	3.8	3.7	3.1	2.6	2.6	3.3
Long-Term Debt Interest Expense[c]	4.2	4.4	4.5	4.0	3.8	3.3	3.9
Allowance for Funds Used During Construction as % of Net Income	0.8	0.7	1.0	1.8	4.7	4.3	2.3
Expenses							
Operating Expenses as % of Operating Revenue	92.9	93.4	93.6	94.6	94.9	95.5	95.2
Maintenance Expenses as % of Total Plant	2.3	2.2	2.3	2.3	2.2	2.2	2.5
Depreciation Expenses as % of Total Plant	3.1	3.1	3.1	3.1	3.2	3.2	3.4
Depreciation Expenses as % of Depreciable Plant	3.1	3.2	3.2	3.2	3.2	3.3	3.4
Total Taxes as % of Total Plant	9.8	10.4	10.4	10.3	9.3	9.7	11.2
Total Taxes as % of Net Plant	13.5	14.4	14.5	14.5	13.4	14.1	16.5
Total Taxes as % of Net Income plus Total Taxes	69.3	69.8	67.1	71.5	70.4	71.7	70.3
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	37.6	36.8	31.8	35.2	28.9	29.9	28.8
Plant							
Total Plant as % of Total Operating Revenue	105.1	96.8	86.4	78.4	72.2	66.6	66.0
Net Plant as % of Total Operating Revenue	76.8	69.7	61.8	55.8	50.2	45.6	44.7
Depreciation Reserve as % of Total Plant	26.9	28.0	28.5	28.9	30.5	31.4	32.2
Depreciation Reserve as % of Depreciable Plant	27.2	28.8	29.4	30.3	31.1	32.0	32.8
Total Plant per Employee ($000)	181.2	189.7	200.1	210.5	219.5	234.1	241.4
Capitalization							
Long-term Debt as % of Net Plant	49.9	44.1	42.9	40.4	40.3	41.4	40.5
% Total Capitalization Represented by:							
a. Long-term Debt	50.0	48.1	46.9	45.9	46.2	46.0	44.1
b. Preferred Stock	4.9	5.6	5.7	6.0	4.6	4.5	4.9
c. Common Equity	45.2	46.3	47.7	48.1	49.2	49.5	51.0
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	81.5	71.0	61.3	44.9	49.2	55.0	65.2
b. Equity Issues	1.1	5.3	18.1	0.5	12.8	22.6	14.8
c. Debt Issues	17.3	23.6	20.6	54.6	38.0	22.4	20.0

a. Data not directly comparable to previous years due to company reclassification.
b. Includes "Investment Tax Credit Adjustment."
c. Changed to reflect pre-federal income tax coverage.
R—Revised.

ANALYTICAL RATIOS

TABLE 14-3
SELECTED COMPOSITE ANALYTICAL RATIOS INVESTOR-OWNED GAS UTILITY INDUSTRY TRANSMISSION COMPANIES, 1960-1983

	1960	1965	1970[a]	1975	1980	1982[R]	1983
Earnings							
Utility Operating Income as % of Total Plant	5.6	4.9	5.3	6.8	6.7	7.4	7.5
Utility Operating Income as % of Net Plant	7.3	7.0	7.8	11.7	12.7	14.3	15.4
Operating Revenue as % of Total Plant	35.6	35.5	36.2	58.5	137.2	156.1	143.5
Common Dividend Payout Ratio	64.8	75.9	72.5	50.9[b]	56.3[b]	60.2[b]	66.9[b]
Return on Common Equity	12.1	12.1	11.7	14.9[b]	15.6[b]	14.9[b]	13.5[b]
Return on Average Common Equity	12.7	12.3	12.1	15.8	16.4	15.5	13.9
Return on Net Plant	4.1	4.2	4.4	10.1	13.8	14.3	13.8
Pretax Coverage of:							
Total Interest Expense[e]	3.5	3.3	2.5	3.6	3.9	3.2	3.3
Long-Term Debt Interest Expense[e]	3.9	3.6	3.0	4.3	5.2	4.2	4.0
Allowance for Funds Used During Construction of % of Net Income	3.5	4.8	4.3	3.0	5.4	4.1	1.6
Expenses							
Operating Expenses as % of Operating Revenue	84.6	86.5	85.8	88.8	95.4	95.5	94.8
Maintenance Expenses as % of Total Plant	0.7	0.7	0.7	0.9	1.3	1.5	1.4
Depreciation Expenses as % of Total Plant	3.2	3.1	3.1	4.4	4.1	4.4	4.2
Depreciation Expenses as % of Depreciable Plant	c	c	c	4.4	4.5	4.7	4.5
Total Taxes as % of Total Plant	3.6	3.1	2.3	5.0	6.6	5.3	5.9
Total Taxes as % of Net Plant	4.6	4.4	3.4	8.6	12.5	10.2	11.8
Total Taxes as % of Net Income plus Total Taxes	50.2	48.4	40.0	44.6[b]	46.1[b]	40.1[b]	44.3[b]
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[d]	34.0	35.9	26.2	35.6[b]	28.4[b]	22.7[b]	31.3[b]
Plant							
Total Plant as % of Total Operating Revenue	280.9	281.4	276.0	171.0	72.9	64.1	69.7
Net Plant as % of Total Operating Revenue	216.9	198.9	186.4	98.5	38.4	33.2	34.4
Depreciation Reserve as % of Total Plant	22.8	29.3	32.5	42.4	47.3	48.2	50.6
Depreciation Reserve as % of Depreciable Plant	c	c	c	43.8	52.1	50.8	53.2
Total Plant per Employee ($000)	285.4	388.7	505.0	547.1	673.1	739.2	796.9
Capitalization							
Long-term Debt as % of Net Plant	63.4	61.8	62.1	71.8	64.1	68.1	68.7
% Total Capitalization Represented by:							
a. Long-term Debt	59.6	58.8	57.1	48.6	39.4	38.9	37.8
b. Preferred Stock	8.7	8.4	8.5	5.8	6.7	6.3	6.1
c. Common Equity	31.8	32.9	34.4	45.5	53.9	54.8	56.0
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	c	c	c	55.4	65.1	61.5	71.9
b. Equity Issues	c	c	c	3.7	6.0	1.7	0.0
c. Debt Issues	c	c	c	40.9	28.9	36.8	28.1

a. Data for 1970 and prior years not directly comparable to subsequent years due to reclassification of several companies.
b. Not comparable with prior years due to a 1973 Federal Power Commission ruling requiring adoption of the equity method in reporting earnings of subsidiaries.
c. Not available.
d. Includes "Investment Tax Credit Adjustment."
e. Changed to reflect pre-federal income tax coverage.
R—Revised

TABLE 14-4
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
INTEGRATED COMPANIES, 1977-1983

	1977	1978	1979	1980	1981[a]	1982[R]	1983[a]
Earnings							
Utility Operating Income as % of Total Plant	6.3	5.9	5.6	5.8	6.3	7.1	7.5
Utility Operating Income as % of Net Plant	9.6	9.1	8.6	9.1	9.6	10.9	11.7
Operating Revenue as % of Total Plant	82.5	89.0	106.5	125.8	132.8	143.2	140.7
Common Dividend Payout Ratio	57.2	64.7	50.8	52.5	56.6	66.2	74.1
Return on Common Equity	13.8	12.0	15.2	15.4	16.0	14.2	12.8
Return on Average Common Equity	14.2	12.3	15.8	15.6	17.0	14.9	13.2
Return on Net Plant	7.9	6.9	8.7	9.1	9.4	8.6	8.4
Pretax Coverage of:							
Total Interest Expense[c]	3.7	3.3	3.4	3.2	3.2	3.0	3.4
Long-Term Debt Interest Expense[c]	4.0	3.9	4.3	4.6	4.8	4.2	4.1
Allowance for Funds Used During Construction as % of Net Income	1.2	1.7	1.5	2.0	1.6	1.8	0.9
Expenses							
Operating Expenses as % of Operating Revenue	92.6	93.6	94.9	95.6	95.4	95.2	94.8
Maintenance Expenses as % of Total Plant	1.8	1.8	2.0	2.1	2.3	2.4	2.2
Depreciation Expenses as % of Total Plant	3.1	3.2	3.4	3.6	3.5	3.5	3.7
Depreciation Expenses as % of Depreciable Plant	3.2	3.5	3.7	4.4	3.7	3.7	3.9
Total Taxes as % of Total Plant	6.1	5.9	6.3	6.4	8.0	8.5	9.2
Total Taxes as % of Net Plant	9.3	9.2	9.7	10.0	12.2	13.0	14.3
Total Taxes as % of Net Income plus Total Taxes	52.6	55.6	51.5	51.3	55.4	59.0	61.3
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[b]	29.6	27.6	7.0	26.8	20.7	20.1	34.4
Plant							
Total Plant as % of Total Operating Revenue	121.2	112.4	93.9	79.5	75.3	69.8	71.1
Net Plant as % of Total Operating Revenue	79.5	72.7	61.1	51.1	49.4	45.7	45.7
Depreciation Reserve as % of Total Plant	34.4	35.3	34.9	35.7	34.3	34.6	35.8
Depreciation Reserve as % of Depreciable Plant	35.0	38.2	38.1	43.8	36.8	36.8	38.0
Total Plant per Employee ($000)	211.4	223.7	239.4	249.8	255.5	259.0	275.1
Capitalization							
Long-term Debt as % of Net Plant	56.4	52.2	52.0	54.6	50.3	52.5	52.7
% Total Capitalization Represented by:							
a. Long-term Debt	47.9	45.4	45.4	45.9	44.1	44.2	42.4
b. Preferred Stock	3.6	4.4	4.4	4.0	4.6	4.8	4.5
c. Common Equity	48.5	50.2	50.1	50.1	51.3	51.0	53.2
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	66.3	63.4	74.9	62.0	64.7	48.5	69.3
b. Equity Issues	7.2	2.9	1.3	2.6	7.8	3.8	9.7
c. Debt Issues	26.5	33.7	23.8	35.4	27.5	47.7	21.0

a. Data not directly comparable to previous years due to company reclassification.
b. Includes "Investment Tax Credit Adjustment."
c. Changed to reflect pre-federal income tax coverage.
R—Revised.

ANALYTICAL RATIOS

TABLE 14-5
SELECTED COMPOSITE ANALYTICAL RATIOS
INVESTOR-OWNED GAS UTILITY INDUSTRY
COMBINATION COMPANIES, 1977-1983

	1977	1978	1979	1980	1981	1982R	1983
Gas Operations							
Earnings							
Utility Operating Income as % of Total Plant	5.7	6.2	7.1	7.4	7.4	8.2	8.4
Utility Operating Income as % of Net Plant	8.0	8.7	10.3	10.7	10.8	12.2	12.7
Operating Revenue as % of Total Plant	78.2	84.6	95.3	108.4	117.3	128.6	129.7
Common Dividend Payout Ratio	64.5	52.5	52.4	59.0	64.1	57.9	62.0
Return on Common Equity	11.8	11.6	14.4	15.5	14.8	17.2	17.0
Return on Average Common Equity	12.1	13.2	15.2	15.9	15.3	17.9	17.4
Return on Net Plant	4.4	4.1	5.4	5.8	5.6	6.8	6.8
Pretax Interest Coverage:							
Total Interest Expense[b]	3.0	3.6	3.4	3.0	2.8	3.2	3.3
Long-Term Debt Interest Expense[b]	3.2	3.8	3.7	3.6	3.4	3.8	3.7
Allowance for Funds Used During Construction as % of Net Income	14.6	20.1	20.7	29.4	32.6	31.0	34.5
Expenses							
Operating Expenses as % of Operating Revenue	92.7	92.7	93.8	94.5	95.0	94.9	94.9
Maintenance Expenses as % of Total Plant	2.3	2.2	2.3	2.3	2.5	2.5	2.4
Depreciation Expenses as % of Total Plant	3.1	3.1	3.1	3.1	3.1	3.2	3.3
Depreciation Expenses as % of Depreciable Plant	3.1	3.1	3.1	3.6	3.2	3.3	3.6
Total Taxes as % of Total Plant	6.5	7.1	7.0	6.9	7.4	8.9	9.1
Total Taxes as % of Net Plant	9.0	10.9	10.0	10.1	10.8	13.2	13.8
Total Taxes as % of Net Income plus Total Taxes	62.8	59.7	61.2	59.3	61.6	62.5	63.2
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[a]	17.8	27.7	26.9	15.5	21.6	22.8	20.1
Plant							
Total Plant as % of Total Operating Revenue	127.8	118.2	104.9	92.2	85.[illegible]	77.8	77.1
Net Plant as % of Total Operating Revenue	91.3	83.5	73.1	63.7	58.5	52.6	51.1
Depreciation Reserve as % of Total Plant	28.6	29.4	30.4	31.0	31.4	32.4	33.7
Depreciation Reserve as % of Depreciable Plant	28.9	29.9	31.0	36.3	32.6	33.7	36.3
Total Plant per Employee ($000)	200.5	212.0	215.6	230.3	253.3	267.4	280.2
All Operations							
Earnings							
Utility Operating Income as % of Total Plant	6.3	6.3	6.3	6.5	7.1	7.6	7.9
Utility Operating Income as % of Net Plant	8.0	8.1	8.1	8.4	9.2	9.8	10.2
Operating Revenue as % of Total Plant	35.5	35.5	36.7	39.8	42.5	42.6	40.8
Common Dividend Payout Ratio	66.1	68.6	72.6	76.0	73.3	69.4	68.6
Return on Common Equity	10.7	10.7	10.7	10.8	11.7	12.9	13.5
Return on Average Common Equity	11.1	11.1	11.4	11.4	12.3	13.8	14.4
Return on Net Plant	3.9	4.0	4.0	4.0	4.4	5.0	5.3
Pretax Interest Coverage:							
Total Interest Expense[b]	2.9	3.0	2.8	2.6	2.6	2.9	3.1
Long-Term Debt Interest Expense[b]	3.1	3.1	3.0	3.0	3.1	3.4	3.4
Allowance for Funds Used During Construction as % of Net Income	25.4	26.9	33.1	37.4	37.2	37.0	41.5
Expenses							
Operating Expenses as % of Operating Revenue	85.0	85.2	86.3	87.2	86.9	86.2	85.6
Maintenance Expenses as % of Total Plant	1.9	1.9	2.1	2.1	2.1	2.2	2.1
Depreciation Expenses as % of Total Plant	2.4	2.3	2.4	2.4	2.4	2.5	2.4
Depreciation Expenses as % of Depreciable Plant	3.0	3.2	3.3	3.2	3.1	3.3	3.4
Total Taxes as % of Total Plant	4.7	4.7	4.3	4.3	4.7	5.4	5.6
Total Taxes as % of Net Plant	6.0	6.0	5.6	5.6	6.1	7.0	7.3
Total Taxes as % of Net Income plus Total Taxes	55.4	55.2	53.4	53.2	53.5	54.3	54.0
Current Federal Income Tax as % of Net Income plus current Federal Income Tax[a]	21.4	21.4	15.6	16.8	20.7	28.7	23.2
Plant							
Total Plant as % of Total Operating Revenue	281.8	281.6	272.3	251.4	235.4	234.8	245.4
Net Plant as % of Total Operating Revenue	220.1	218.7	211.2	194.7	181.4	180.8	189.6
Depreciation Reserve as % of Total Plant	21.9	22.3	22.4	22.5	22.9	23.0	22.7
Depreciation Reserve as % of Depreciable Plant	26.8	26.6	26.8	30.1	29.7	30.4	32.1
Capitalization							
Long-term Debt as % of Net Plant	48.2	47.2	46.3	45.5	44.6	44.7	44.3
% Total Capitalization represented by:							
a. Long-term Debt	49.3	48.6	48.4	48.0	47.5	47.1	46.7
b. Preferred Stock	13.6	13.4	13.3	13.2	12.9	12.3	12.1
c. Common Equity	37.2	38.0	38.3	38.8	39.6	40.6	41.3
% Current Year Financing of Construction Expenditures Represented by:							
a. Internal Sources	57.3	50.0	24.7	32.5	41.3	49.8	54.7
b. Equity Issues	31.5	23.9	3.0	35.9	23.7	30.3	18.6
c. Debt Issues	11.2	26.1	72.3	31.6	35.0	19.9	26.7

a. Includes "Investment Tax Credit Adjustment."
b. Changed to reflect pre-federal income tax coverage.
R—Revised.

TABLE 14-6
SELECTED ANALYTICAL RATIOS RELATING TO INVESTOR-OWNED GAS UTILITY INDUSTRY OPERATING AND MAINTENANCE EXPENSES, 1970-1983[a]

	Total Operating and Maintenance Expense per Therm of Sales (cents)					Total Operating Revenue per Therm of Sales (cents)				
Type of Activity	1970	1975	1980	1982[R]	1983	1970	1975	1980	1982[R]	1983
Natural Gas Distribution[b]	5.85	11.53	29.37	43.21	49.53	8.46	15.12	34.82	50.28	58.12
Natural Gas Transmission	2.44	6.07	22.12	33.37	36.42	3.45	8.35	25.23	37.40	41.51

	Transmission and Distribution Expense per Mile of Pipe (dollars)					Total Cost of Purchases as Percent of Total Operating and Maintenance Expense (%)				
Type of Activity	1970	1975	1980	1982[R]	1983	1970	1975	1980	1982[R]	1983
Natural Gas Distribution[b]	1,423.07	1,904.73	2,666.68	3,005.98	3,200.13	69.30	77.74	85.80	87.28	86.61
Natural Gas Transmission	2,398.21	3,836.43	11,510.06	16,188.27	15,799.86	89.00	86.09	90.66	90.19	89.44

	Customer Accounts Expense Per Customer (dollars)					Total Payroll as Percent of Total Operating and Maintenance Expense (%)				
Type of Activity	1970	1975	1980	1982	1983	1970	1975	1980	1982	1983
Natural Gas Distribution[b]	8.06	13.90	22.68	29.47	32.58	19.18	14.97	9.05	7.59	7.72
Natural Gas Transmission						7.41	5.99	2.97	2.89	3.18

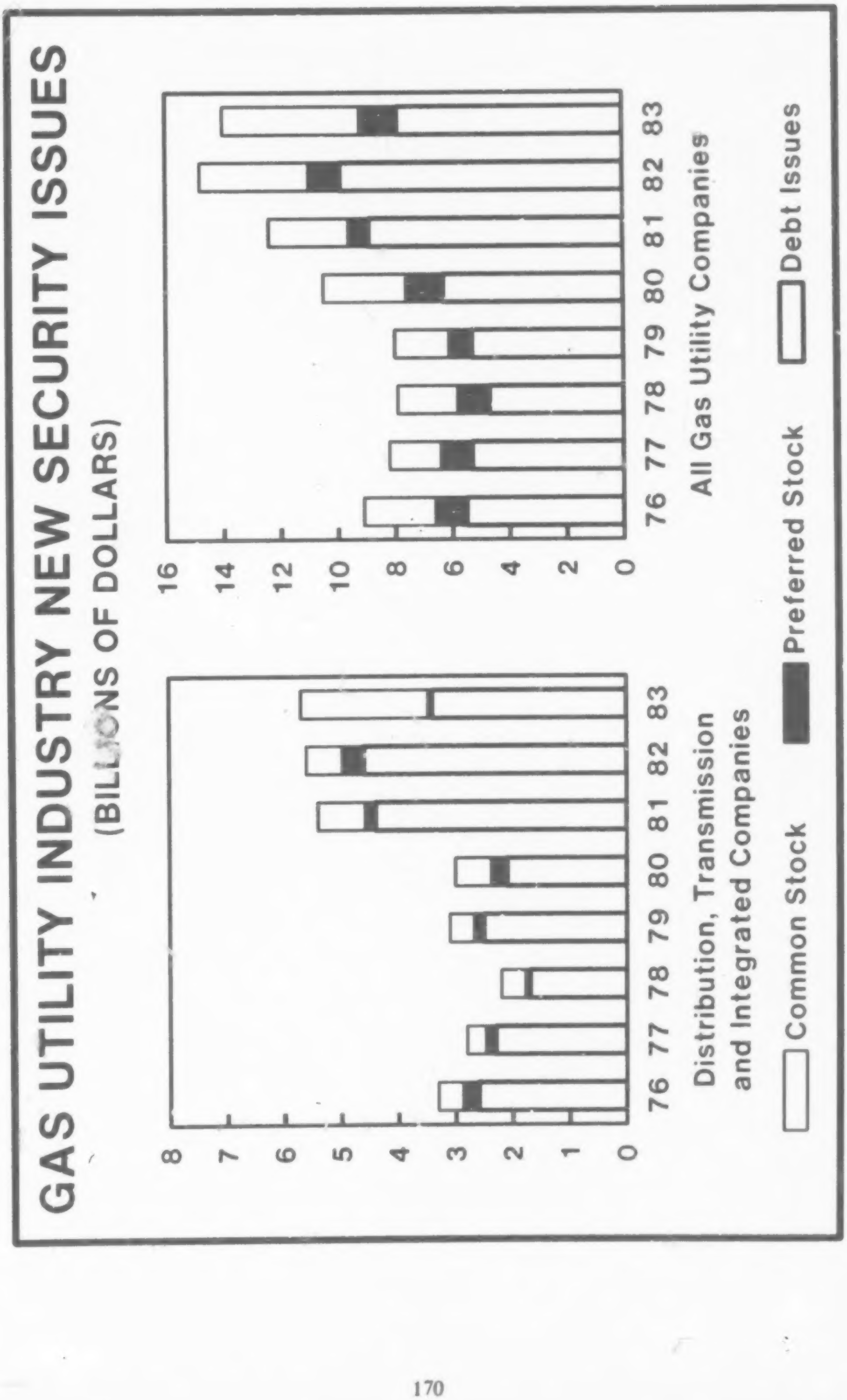
	Gross Sales Expense per Customer (dollars				
Type of Activity	1970	1975	1980	1982	1983
Straight Natural Gas Distribution	6.56	2.90	2.94	2.99	3.03
Combination Natural Gas Distribution	4.01	1.16	0.60	0.57	0.57

a. Integrated companies exlcuded.
b. Includes both straight gas and combination companies.
R – Revised.

SECTION 15
SECURITY ISSUES

	1983	% Change 83/82
No. of Issues		
Total	449	−14.1
Common Stock	275	− 4.2
Preferred Stock	29	− 9.4
Debt Issues	145	−28.9
Amount		
(Thousands)		
Total	$14,014,964	− 5.3
Common Stock	4,885,205	+26.7
Preferred Stock	1,301,151	+21.2
Debt Issues	7,858,608	−20.5

CHART 15-1



GAS UTILITY INDUSTRY NEW SECURITY ISSUES

(BILLIONS OF DOLLARS)

REFERENCE: TABLES 15-1, 15-4, 15-6, 15-8, 15-10, 15-12

TABLE 15-1
GAS UTILITY INDUSTRY SECURITY ISSUES
OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES
1960-1983[b]

							Debt Issues							
	Total		Common Stock		Preferred Stock		Total		Bonds		Debentures		Notes	
Year	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)	No. of Issues	Amount (000)
1960	193	$ 1,859,043	67	$ 240,509	19	$ 202,267	107	$1,416,267	79	$1,098,250	20	$ 276,323	8	$ 41,694
1965	176	1,728,807	60	99,444	28	324,790	88	1,304,573	61	854,010	18	410,900	9	39,663
1966	164	1,966,903	56	109,905	22	200,906	86	1,656,092	70	1,375,390	8	222,412	8	58,290
1967	187	2,930,328	50	59,205	23	265,847	114	2,605,276	82	1,997,644	21	565,274	11	42,358
1968	167	2,760,665	52	143,110	16	258,254	99	2,359,301	70	1,540,501	18	588,750	11	230,050
1969	204	3,443,576	78	457,935	18	267,762	108	2,717,879	64	1,664,945	26	758,569	18	294,365
1970	280	6,030,084	68	745,638	33	620,674	179	4,663,772	125	3,502,000	27	897,500	27	264,272
1971	330	7,012,900	96	1,283,271	47	965,439	187	4,764,190	103	3,193,366	26	927,500	58	643,324
1972	280	6,832,495	83	1,306,307	39	1,185,808	158	4,340,380	87	3,032,306	13	554,500	58	753,574
1973	286	6,302,378	96	1,408,410	39	1,073,959	151	3,820,009	82	2,466,690	6	260,000	63	1,093,319
1974	286	7,889,359	102	1,144,544	39	1,128,175	145	5,616,640	78	3,950,281	17	739,519	50	926,840
1975	353	8,312,575	141	1,973,385	42	1,059,396	170	5,279,794	101	3,661,125	19	911,571	50	707,098
1976	336	9,104,026	152	2,472,747	41	1,108,268	143	5,523,011	75	2,899,279	16	860,500	52	1,763,232
1977	336	8,244,438	167	1,864,904	40	1,106,130	129	5,273,404	70	2,956,200	10	461,500	49	1,855,704
1978	351	7,933,090	163	2,167,077	48	1,055,458	140	4,710,555	73	3,189,650	12	306,516	55	1,214,389
1979	322	7,959,649	162	1,860,954	30	773,692	130	5,325,003	69	2,908,350	11	895,000	50	1,521,653
1980	275	10,508,334	101	2,879,775	31	1,288,237	143	6,340,322	73	3,571,945	18	1,510,000	52	1,258,377
1981	472	12,384,931	246	2,816,829	27	654,940	199	8,913,162	110	5,051,554	16	1,207,500	73	2,654,108
1982	523	14,794,327	287	3,832,926	32	1,073,300	204	9,888,101	107	4,538,410	20	1,356,000	77	3,993,691
1983	499	14,014,964	275	4,855,205	29	1,301,151	145	7,858,608	86	4,651,154	12	1,024,703	47	2,182,751

[a] Holding companies used in this section are as follows: Columbia Gas Systems, Inc., Northeast Utilities, Northern States Power Company, and Public Service Company of Colorado.

[b] All new and refunding security issues, except sales by subsidiaries to parent companies and direct exchanges for which data were obtainable have been included. Short term notes for less than one year are omitted. Bonds, debentures, and notes are included in principal amounts; preferred stocks at stated or liquidating values; and common stocks at offerings prices.

TABLE 15-2
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF SECURITY ISSUES OF DISTRIBUTION, INTEGRATED, TRANSMISSION, HOLDING,[a] AND COMBINATION GAS AND ELECTRIC COMPANIES
1960-1983[b]

	Preferred Stock				Bonds				Debentures						
	Cost%		Yield%		Cost%		Yield%		Cost%		Yield%		Sample Amount (000)		
Year	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Average	Weighted Average	Preferred Stock	Bonds	Debentures
1960	5.61	5.51	5.50	5.45	5.22	5.03	5.17	4.98	5.22	5.05	5.14	5.03	$ 192,767	$1,017,700	$ 266,602
1965	4.71	4.78	4.69	4.76	4.77	4.74	4.75	4.71	4.84	4.87	4.81	4.82	268,200	806,460	403,700
1966	5.60	5.61	5.59	5.57	5.80	5.80	5.74	5.73	5.94	5.91	5.86	5.83	89,130	1,251,935	150,000
1967	6.15	6.18	6.10	6.11	6.17	6.18	6.11	6.10	6.43	6.43	6.32	6.35	224,370	1,882,995	507,500
1968	6.69	6.63	6.62	6.55	6.80	6.82	6.73	6.80	7.13	7.19	7.04	7.10	133,000	1,448,801	442,000
1969	8.08	8.04	7.95	7.93	7.66	7.61	8.52	8.22	8.39	8.47	8.52	8.22	226,888	1,664,945	758,569
1970	9.25	9.27	9.16	9.18	9.04	9.08	9.06	9.26	9.16	9.36	9.06	9.26	570,674	3,492,500	897,000
1971	8.16	7.98	8.05	7.87	8.06	7.90	7.97	7.81	8.16	8.14	8.07	8.05	922,312	3,098,589	912,500
1972	7.70	7.65	7.62	7.56	7.60	7.56	7.53	7.50	7.53	7.44	7.46	7.38	1,074,539	2,631,306	455,500
1973	7.72	7.61	7.66	7.54	7.98	7.93	7.91	7.87	7.80	7.77	7.73	7.71	1,051,459	2,137,890	200,000
1974	9.96	9.83	9.82	9.68	9.76	9.84	9.67	9.75	9.48	9.34	9.40	9.25	996,175	3,222,000	535,000
1975	10.87	10.89	10.55	10.53	10.10	10.06	10.00	9.97	10.28	10.31	10.17	10.20	1,028,515	3,346,050	801,000
1976	10.15	9.49	9.16	9.24	8.96	9.01	8.87	8.93	8.88	8.87	8.81	8.80	1,050,268	2,826,590	735,000
1977	8.50	8.45	8.34	8.31	8.51	8.50	8.45	8.44	8.74	8.36	8.63	8.29	973,512	2,682,500	265,000
1978	8.84	8.90	8.75	8.68	8.40	8.18	8.38	8.01	9.26	9.02	9.12	8.89	806,206	2,669,900	150,000
1979	9.05	9.32	9.03	9.23	11.14	10.55	11.12	10.48	10.81	11.12	10.65	11.04	705,500	2,348,300	645,000
1980	11.91	12.40	11.67	12.20	11.99	12.92	11.90	12.82	13.07	12.67	12.97	12.57	935,500	3,038,400	925,000
1981	13.75	14.06	13.57	13.80	15.06	16.55	14.77	16.29	16.24	16.11	15.80	15.76	630,500	3,956,154	1,207,500
1982	14.39	14.61	14.20	14.32	14.39	14.94	14.27	14.82	15.46	15.19	15.17	14.95	858,800	3,914,100	1,356,000
1983	11.69	12.18	11.42	11.85	11.82	12.10	11.63	11.96	12.40	13.54	12.23	13.39	1,209,175	3,958,380	780,000

a. Refer to Table 15-1 for name of holding companies.
b. Includes only those preferred stocks, bonds, and debentures shown in Table 15-1 for which necessary cost and yield data were available.
Definitions: "Cost" refers to the expenses incurred by a company relative to new security issues over the life of debt issues and fixed dividends (if applicable) on preferred stock. It includes underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer of these debt issues and fixed dividends (if applicable) expected on preferred stock. It includes underwriter fees, plus premium expenses less discounts.

TABLE 15-3

GAS UTILITY INDUSTRY LONG TERM DEBT ISSUES, BY MOODY'S BOND RATING CATEGORY, 1983

	Issues		Cost %		Yield %	
Rating	Number	Sample Amount (000)	Average	Weighted Average	Average	Weighted Average
Aaa	*	*	*	*	*	*
Aa	6	$525,000	11.53	11.59	11.44	11.51
A	13	$1,310,000	12.45	12.51	12.35	12.42
Baa	16	$1,435,000	13.03	13.07	12.91	12.95
Ba	*	*	*	*	*	*

*No issues used in this sample.

TABLE 15-4
GAS UTILITY INDUSTRY COMMON STOCK ISSUES, BY TYPE OF COMPANY
1977-1983[a]

Type of Company	1977	1978	1979	1980	1981	1982	1983
Total							
Amount (000)	$1,864,904	$2,167,077	$1,860,954	$2,879,775	$2,816,829	$3,832,926	$4,855,205
No. of Issues	167	163	162	101	246	287	275
Distribution							
Amount (000)	$94,917	$77,052	$53,295	$277	$178,822	$69,503	$272,950
No. of Issues	13	16	9	4	33	30	43
Transmission							
Amount (000)	$107,387	$80,214	$323,125	$453,019	$565,822	$375,298	$159,889
No. of Issues	9	13	15	7	11	10	7
Integrated							
Amount (000)	$42,398	$182,100	$43,012	$156,900	$84,240	$121,926	$1,835,208
No. of Issues	16	19	15	5	20	44	34
Combination Utilities							
Amount (000)	$1,425,839	$1,701,314	$1,385,842	$2,053,120	$1,839,529	$2,984,412	$2,394,543
No. of Issues	115	106	120	80	169	194	183
Holding[b]							
Amount (000)	$194,363	$126,397	$55,680	$216,459	$148,416	$281,787	$192,615
No. of Issues	14	9	3	5	13	9	8

[a] See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

[b] A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

SECURITY ISSUES

TABLE 15-5
GAS UTILITY INDUSTRY INDEXES OF COMMON STOCK PRICES, DIVIDENDS, YIELDS, AND EARNINGS BY TYPE OF COMPANY, 1978-1983

Year	1978		1979		1980		1981		1982		1983	
Type of Company / Week	Jun 30	Dec 29	Jun 29	Dec 27	Jun 27	Dec 31	Jun 26	Dec 31	Jun 25	Dec 31	Jul 1	Dec 30
Natural Gas Industry												
a) Market Price ($ Per Share)	77.72	72.47	87.10	104.10	108.29	139.35	108.36	106.96	84.47	92.94	113.52	113.40
b) Dividend ($ Per Share)	5.08	5.43	5.56	5.97	6.18	6.45	6.70	6.91	6.89	7.14	7.05	7.29
c) Yield (Percent)	6.54	7.49	6.38	5.73	5.71	4.63	6.18	6.46	8.16	7.68	6.21	6.43
d) Earnings ($ Per Share)*	11.52	11.89	11.76	12.22	13.06	14.21	14.55	16.97	16.34	14.98	13.11	12.92
Distribution Companies												
a) Market Price ($ Per Share)	48.46	45.97	54.04	53.83	54.05	56.19	54.79	53.50	48.27	50.62	55.49	55.79
b) Dividend ($ Per Share)	4.07	4.18	4.34	4.44	4.61	4.68	4.96	5.12	5.29	5.39	5.42	5.55
c) Yield (Percent)	8.40	9.09	8.03	8.25	8.53	8.33	9.05	9.57	10.96	10.65	9.77	9.95
d) Earnings ($ Per Share)*	7.43	7.79	7.23	8.00	8.53	8.07	8.61	8.77	8.22	7.46	6.34	6.66
Transmission Companies												
a) Market Price ($ Per Share)	94.09	87.09	109.73	134.16	138.88	186.77	137.87	135.42	99.17	114.32	141.88	142.96
b) Dividend ($ Per Share)	5.74	6.25	6.40	7.00	7.20	7.59	7.85	8.29	8.56	8.90	8.59	8.89
c) Yield (Percent)	6.10	7.18	5.83	5.22	5.18	4.06	5.69	6.12	8.63	7.79	6.05	6.22
d) Earnings ($ Per Share)*	14.36	14.37	14.74	15.30	15.76	19.32	17.45	23.17	21.57	19.64	16.99	15.81

*Earnings are for twelve month periods.

Source: Moody's Investors Service, *Moody's Public Utility News Reports*.

TABLE 15-6
GAS UTILITY INDUSTRY PREFERRED STOCK ISSUES, BY TYPE OF COMPANY
1977-1983[a]

Type of Company	1977	1978	1979	1980	1981	1982	1983
Total							
Amount (000)	$1,106,130	$1,055,458	$773,692	$1,288,237	$654,940	$1,073,300	$1,301,151
No. of Issues	40	48	30	31	27	32	29
Distribution							
Amount (000)	$57,465	$116,533	$92,575	$34,000	$21,000	$8,000	$30,000
No. of Issues	3	8	5	3	2	1	1
Transmission							
Amount (000)	$74.618	$3,000	$70,117	$259,737	$125,206	$285,000	$0
No. of Issues	5	1	3	1	4	6	0
Integrated							
Amount (000)	$53,250	$22,252	$33,500	$3,500	$27,000	$102,000	$89,494
No. of Issues	4	2	2	1	1	4	5
Combination Utilities							
Amount (000)	$880,797	$913,673	$577,500	$991,000	$481,734	$675,300	$998,922
No. of Issues	27	37	20	26	20	20	19
Holding[b]							
Amount (000)	$40,000	$0	$0	$0	$0	$3,000	$182,735
No. of Issues	1	0	0	0	0	1	4

a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-7
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF PREFERRED STOCK ISSUES
1977-1983[a]

	1977		1978		1979		1980		1981		1982		1983	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield
Total														
Average	8.50	8.34	8.84	8.75	9.05	9.03	11.91	11.67	13.75	13.57	14.39	14.20	11.69	11.42
Weighted Average	8.45	8.31	8.90	8.68	9.32	9.23	12.40	12.20	14.06	13.80	14.61	14.32	12.18	11.85
Sample Amount (000)		$973,512		$806,206		$705,500		$935,500		$630,500		$858,800		$1,209,175
Distribution														
Average	8.70	8.51	8.63	8.54	9.34	9.30	9.26	9.08	15.98	15.65	13.00	13.00	11.76	11.50
Weighted Average	8.47	8.36	8.49	8.41	9.34	9.30	9.34	9.13	16.41	15.79	13.00	13.00	11.76	11.50
Sample Amount (000)		$57,465		$83,533		$70,000		$34,000		$21,000		$8,000		$30,000
Transmission														
Average	7.49	7.45	9.50	9.40	8.38	8.38	*	*	13.28	13.00	14.55	14.27	*	*
Weighted Average	7.49	7.45	9.50	9.40	8.43	8.43	*	*	13.92	13.60	14.63	14.28	*	*
Sample Amount (000)		$30,000		$3,000		$70,000		$0		$125,000		$175,000		$ 0
Integrated														
Average	8.69	8.55	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00	11.16	10.92
Weighted Average	8.40	8.14	8.70	8.62	9.50	9.50	9.50	9.50	12.25	12.25	14.00	14.00	11.04	10.81
Sample Amount (000)		$53,250		$12,000		$8,500		$3,500		$27,000		$5,000		$85,000
Combination Utilities														
Average	8.47	8.31	8.52	8.45	8.99	8.93	12.38	12.12	13.67	13.45	14.45	14.26	11.79	11.51
Weighted Average	8.47	8.33	8.95	8.72	9.42	9.32	12.52	12.32	14.10	13.86	14.63	14.35	12.36	12.01
Sample Amount (000)		$792,797		$707,673		$557,000		$898,000		$457,500		$670,800		$995,425
Holding[b]														
Average	8.80	8.50	*	*	*	*	*	*	*	*	*	*	11.48	11.27
Weighted Average	8.80	8.50	*	*	*	*	*	*	*	*	*	*	11.46	11.26
Sample Amount (000)		$40,000		$0		$0		$0		$0		$0		$98,750

a. Includes only those issues in Table 15-6 for which necessary cost and yield data were available.
b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.
*No issues used in this sample.
Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-8

GAS UTILITY INDUSTRY BOND ISSUES, BY TYPE OF COMPANY 1977-1983[a]

Type of Company	1977	1978	1979	1980	1981	1982	1983
Total							
Amount (000)	$2,956,200	$3,189,650	$2,908,350	$3,571,945	$5,051,554	$4,538,410	$4,651,154
No. of Issues	70	73	69	73	110	107	86
Distribution							
Amount (000)	$176,000	$503,750	$371,150	$25,545	$560,500	$135,000	$493,321
No. of Issues	8	11	14	3	20	12	13
Transmission							
Amount (000)	$75,000	$0	$167,000	$53,000	$875,000	$425,000	$225,000
No. of Issues	3	0	3	1	5	4	2
Integrated							
Amount (000)	$158,500	$188,000	$111,100	$122,500	$221,400	$150,647	$449,103
No. of Issues	10	8	9	7	6	8	12
Combination Utilities							
Amount (000)	$2,496,700	$2,446,400	$2,259,100	$3,160,900	$3,297,909	$3,701,163	$3,147,730
No. of Issues	48	52	43	59	74	81	52
Holding[b]							
Amount (000)	$50,000	$51,500	$0	$210,000	$96,745	$126,600	$336,000
No. of Issues	1	2	0	3	5	2	7

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a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-9

GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF BOND ISSUES

1977-1983[a]

	1977		1978		1979		1980		1981		1982		1983	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield
Total														
Average	8.51	8.45	8.40	8.38	11.14	11.12	11.99	11.90	15.06	14.77	14.39	14.27	11.82	11.63
Weighted Average	8.50	8.44	8.18	8.01	10.55	10.48	12.92	12.82	16.55	16.29	14.94	14.82	12.10	11.96
Sample Amount (000)		$2,682,200		$2,669,900		$2,348,300		$3,038,400		$3,956,154		$3,914,100		$3,958,380
Distribution														
Average	8.78	8.72	7.00	7.10	11.32	11.26	12.09	12.00	16.09	15.99	15.30	15.30	12.16	12.07
Weighted Average	8.62	8.54	6.67	6.61	11.10	11.42	12.09	12.00	16.68	16.58	15.81	15.81	12.67	12.56
Sample Amount (000)		$123,000		$310,000		$224,150		$15,000		$497,500		$57,000		$350,450
Transmission														
Average	*	*	*	*	10.63	10.53	*	*	16.65	16.45	13.79	13.58	13.04	12.91
Weighted Average	*	*	*	*	10.63	10.53	*	*	16.47	16.27	14.18	13.98	13.04	12.91
Sample Amount (000)		$0		$0		$50,000		$0		$175,000		$225,000		$125,000
Integrated														
Average	8.97	8.89	8.50	8.45	12.85	12.75	12.92	12.87	15.88	15.76	15.12	14.98	12.27	12.13
Weighted Average	8.86	8.79	8.96	8.88	12.85	12.75	12.30	12.23	16.05	15.91	15.39	15.23	12.08	11.97
Sample Amount (000)		$129,000		$157,000		$70,000		$47,000		$218,000		$143,000		$394,000
Combination Utilities														
Average	8.42	8.36	8.85	8.78	9.74	9.92	11.85	11.75	14.73	14.57	14.28	14.15	11.73	11.55
Weighted Average	8.47	8.41	9.19	9.12	10.40	10.29	12.93	12.83	16.55	16.37	14.95	14.83	12.09	11.96
Sample Amount (000)		$2,380,200		$2,152,900		$2,004,150		$2,766,400		$2,968,909		$3,362,500		$2,777,930
Holding[b]														
Average	8.41	8.34	9.23	9.18	*	*	13.23	13.14	13.40	13.18	14.66	14.38	10.93	10.50
Weighted Average	8.41	8.34	9.23	9.18	*	*	12.95	12.86	15.57	15.30	15.09	14.98	11.20	10.87
Sample Amount (000)		$50,000		$50,000		$0		$210,000		$96,745		$126,600		$311,000

[a] Includes only those issues in Table 15-8 for which necessary cost and yield data were available.

[b] A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

*No issues used in this sample.

Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-10
GAS UTILITY INDUSTRY DEBENTURE ISSUES, BY TYPE OF COMPANY
1977-1983[a]

Type of Company	1977	1978	1979	1980	1981	1982	1983
Total							
Amount (000)	$461,500	$306,516	$895,000	$1,510,000	$1,207,500	$1,356,000	$1,024,703
No. of Issues	10	12	11	18	16	20	12
Distribution							
Amount (000)	$70,000	$0	$40,000	$0	$88,500	$0	$165,000
No. of Issues	3	0	1	0	4	0	3
Transmission							
Amount (000)	$175,000	$130,000	$450,000	$663,500	$689,000	$703,000	$324,703
No. of Issues	1	2	4	8	7	10	3
Integrated							
Amount (000)	$101,500	$106,500	$215,000	$416,500	$340,000	$308,000	$460,000
No. of Issues	4	7	3	5	3	4	5
Combination Utilities							
Amount (000)	$0	$70,016	$15,000	$230,000	$90,000	$245,000	$75,000
No. of Issues	0	3	1	3	2	5	1
Holding[b]							
Amount (000)	$115,000	$0	$175,000	$200,000	$0	$100,000	$0
No. of Issues	2	0	2	2	0	1	0

[a] See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

[b] A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

TABLE 15-11
GAS UTILITY INDUSTRY AVERAGE PERCENT COST AND YIELD OF DEBENTURE ISSUES
1977-1983[a]

	1977		1978		1979		1980		1981		1982		1983	
	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield %	Cost %	Yield
Total														
Average	8.74	8.63	9.26	9.12	10.81	10.65	13.07	12.97	16.24	15.80	15.46	15.17	12.40	12.23
Weighted Average	8.36	8.29	9.02	8.89	11.12	11.04	12.67	12.57	16.11	15.76	15.19	14.95	13.54	13.39
Sample Amount (000)		$265,000		$150,000		$645,000		$925,000		$1,207,500		$1,356,000		$780,000
Distribution														
Average	7.36	7.28	*	*	9.93	9.88	*	*	16.22	15.81	*	*	12.68	12.37
Weighted Average	7.36	7.28	*	*	9.93	9.88	*	*	17.20	16.85	*	*	12.41	12.23
Sample Amount (000)		$50,000		$0		$40,000		$0		$88,500		$0		$165,000
Transmission														
Average	*	*	*	*	11.31	11.22	13.89	13.81	16.65	16.24	15.85	15.66	13.30	13.19
Weighted Average	*	*	*	*	11.40	11.30	14.10	14.02	16.49	16.09	15.46	15.26	13.30	13.19
Sample Amount (000)		$0		$0		$200,000		$175,000		$689,000		$703,000		$200,000
Integrated														
Average	9.39	9.24	9.69	9.55	10.75	10.68	11.65	11.56	14.80	14.43	13.96	13.64	11.79	11.69
Weighted Average	8.87	8.77	9.21	9.11	10.98	10.94	11.17	11.09	14.86	14.69	13.85	13.63	11.21	11.12
Sample Amount (000)		$100,000		$80,000		$215,000		$400,000		$340,000		$308,000		$440,000
Combination Utilities														
Average	*	*	8.83	8.68	10.92	10.38	14.54	14.39	17.02	16.33	15.85	15.37	12.26	12.00
Weighted Average	*	*	8.81	8.64	10.92	10.38	14.64	14.48	16.78	16.22	15.95	15.53	12.26	12.00
Sample Amount (000)		$0		$70,000		$15,000		$150,000		$90,000		$245,000		$75,000
Holding[b]														
Average	8.44	8.38	*	*	11.16	11.08	12.93	12.84	*	*	15.57	15.57	*	*
Weighted Average	8.36	8.31	*	*	11.27	11.18	12.93	12.84	*	*	15.46	15.46	*	*
Sample Amount (000)		$115,000		$0		$175,000		$200,000		$0		$100,000		$0

a. Includes only those issues in Table 15-10 for which necessary cost and yield data were available.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

*No issues used in this sample.

Definitions: "Cost" refers to the expenses incurred by a company. It includes dividends, underwriter fees, plus discount expenses less premiums.
"Yield" is the rate of return on investment by a buyer.

TABLE 15-12
GAS UTILITY INDUSTRY NOTE ISSUES, BY TYPE OF COMPANY
1977-1983[a]

Type of Company	1977	1978	1979	1980	1981	1982	1983
Total							
Amount (000)	$1,855.704	$1.214.389	$1.521.653	$1.258.377	$2.654.108	$3.993.691	$2,182,751
No. of Issues	49	55	50	52	73	77	47
Distribution							
Amount (000)	$43.585	$97.854	$140.500	$153.900	$123.135	$550.515	$438,635
No. of Issues	8	6	6	4	11	9	7
Transmission							
Amount (000)	$663.644	$468.150	$666.066	$455.764	$1.209.039	$1.671.000	$613,058
No. of Issues	15	12	7	16	21	19	9
Integrated							
Amount (000)	$882.390	$215.441	$318.770	$228.571	$281.479	$647.675	$185,356
No. of Issues	8	15	14	9	7	15	7
Combination Utilities							
Amount (000)	$254.774	$432.775	$396.317	$383.142	$978.455	$1.124.501	$762,967
No. of Issues	16	21	23	22	33	34	20
Holding[b]							
Amount (000)	$11.311	$169	$0	$37.000	$62.000	$0	$182,735
No. of Issues	2	1	0	1	1	0	4

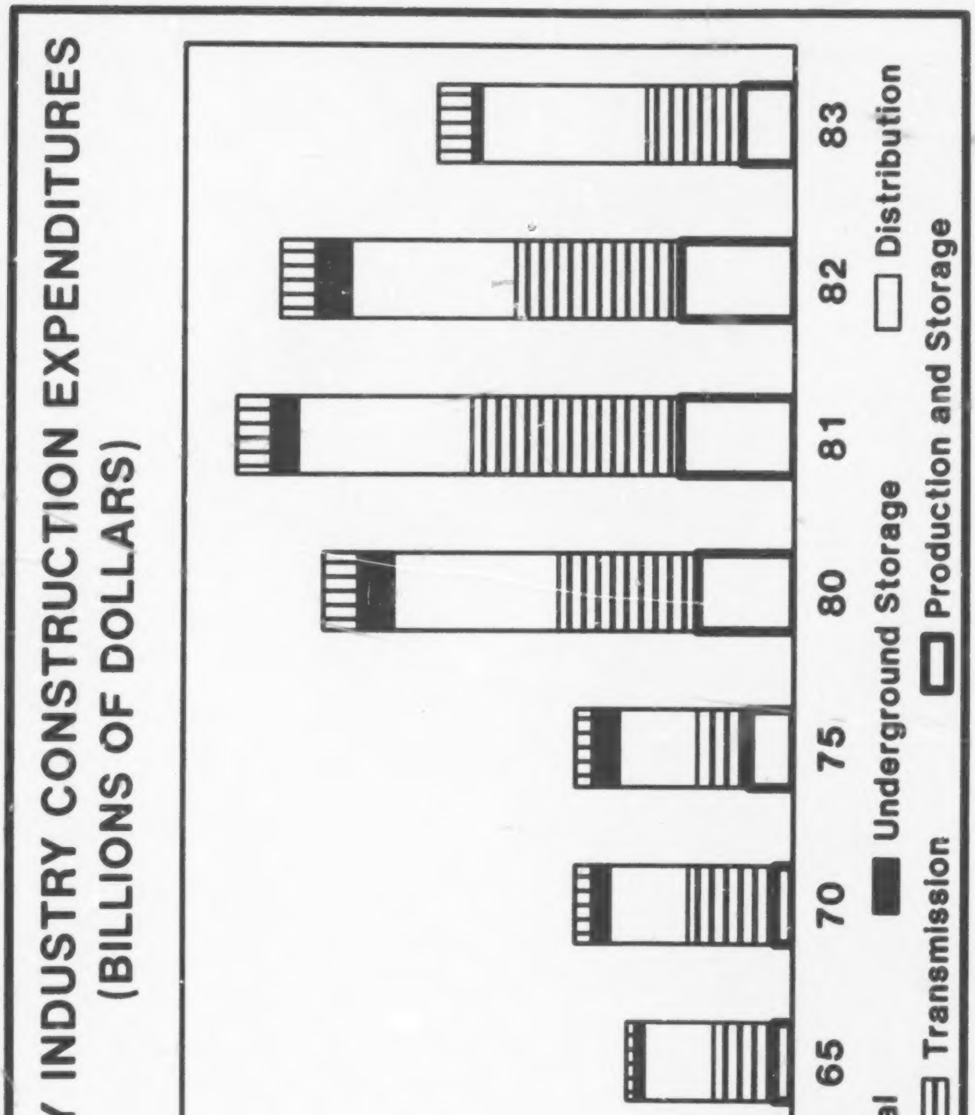
a. See Footnote "b", Table 15-1 for description of securities included and the derivation of stated amounts.

b. A holding company is a corporation that is formed for the sole purpose of owning stock in other companies. Names of companies included in Footnote "a" of Table 15-1.

SECTION 16
CONSTRUCTION EXPENDITURES

	1983	% Change 83/82
Construction Expenditures		
(Millions)		
Total	$4,078	−31.3
Production & Storage	607	−54.1
Transmission	1,065	−44.6
Underground Storage	139	−62.2
Distribution	1,845	− 1.9
General	422	− 5.6

CHART 16-1



GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES (BILLIONS OF DOLLARS)

REFERENCE: TABLE 16-1

CONSTRUCTION EXPENDITURES

TABLE 16-1
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1960-1987*

(Millions)

Year	Total	Production and Storage	Transmission	Underground Storage	Distribution	General
1960	$1,845	$ 157	$ 848	$ 59	$ 696	$ 85
1961	1,662	172	654	55	687	94
1962	1,673	177	613	53	708	122
1963	1,558	138	461	106	752	101
1964	1,701	120	616	84	784	97
1965	1,935	156	770	69	824	116
1966	2,374	182	1,038	151	869	134
1967	2,252	186	1,006	91	848	121
1968	2,972	259	1,577	88	913	135
1969	2,686	83	1,511	128	863	101
1970	2,507	203	1,019	167	913	205
1971	2,419	340	842	171	888	178
1972	2,822	717	678	177	1,081	169
1973	2,966	771	746	201	1,094	155
1974	2,965	830	632	230	1,097	176
1975	2,466	555	590	276	910	136
1976	2,425	466	531	362	926	140
1977	2,833	620	670	323	1,048	172
1978	3,581	881	935	321	1,228	215
1979	4,366	1,125	1,226	281	1,448	286
1980	5,350	1,150	1,583	396	1,869	352
1981	6,389	1,346	2,352	326	1,955	410
1982	5,939	1,322	1,921	368	1,881	447
1983	4,078	607	1,065	139	1,845	422
1984(forecast)	5,747	978	1,770	116	2,307	575
1985(forecast)	5,833	751	1,815	187	2,589	491
1986(forecast)	6,092	738	1,995	188	2,698	472
1987(forecast)	6,417	703	2,274	163	2,795	481

*For companies not reporting 1986 and 1987 forecasts, data extrapolated from earlier years.

TABLE 16-2
GAS UTILITY INDUSTRY CONSTRUCTION EXPENDITURES, BY TYPE OF FACILITY, 1978-1983

	1978	1979	1980	1981	1982[R]	1983
Production and Storage	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
SNG Plant	8.6	0.6	3.1	2.3	2.7	0.5
LNG Plant	a	a	0.1	0.1	a	0.8
Propane Plant	0.8	2.2	2.3	3.0	3.8	7.3
Exploration and Drilling	21.8	29.1	18.2	18.7	22.1	22.6
Other[b]	62.1	64.1	72.3	71.1	66.1	65.8
LNG Storage	4.1	2.6	1.3	0.2	2.0	1.7
Other Storage	2.6	1.4	2.6	4.6	3.2	1.3
LNG Ships	a	0.0	0.0	0.0	0.0	0.0
Transmission	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	77.6	68.7	70.4	79.6	77.3	72.5
Compressor Stations	16.4	26.0	20.1	13.8	18.8	21.4
Other	6.0	5.2	9.6	6.6	3.9	6.1
Distribution	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
New and Replacement Pipe	88.1	88.7	86.2	85.8	85.8	87.9
Compressor Stations	a	1.4	4.1	4.5	3.9	2.6
Other	11.9	9.9	9.7	9.7	10.3	9.5

a. Less than 0.1 percent.
b. Includes gathering.
R – Revised.

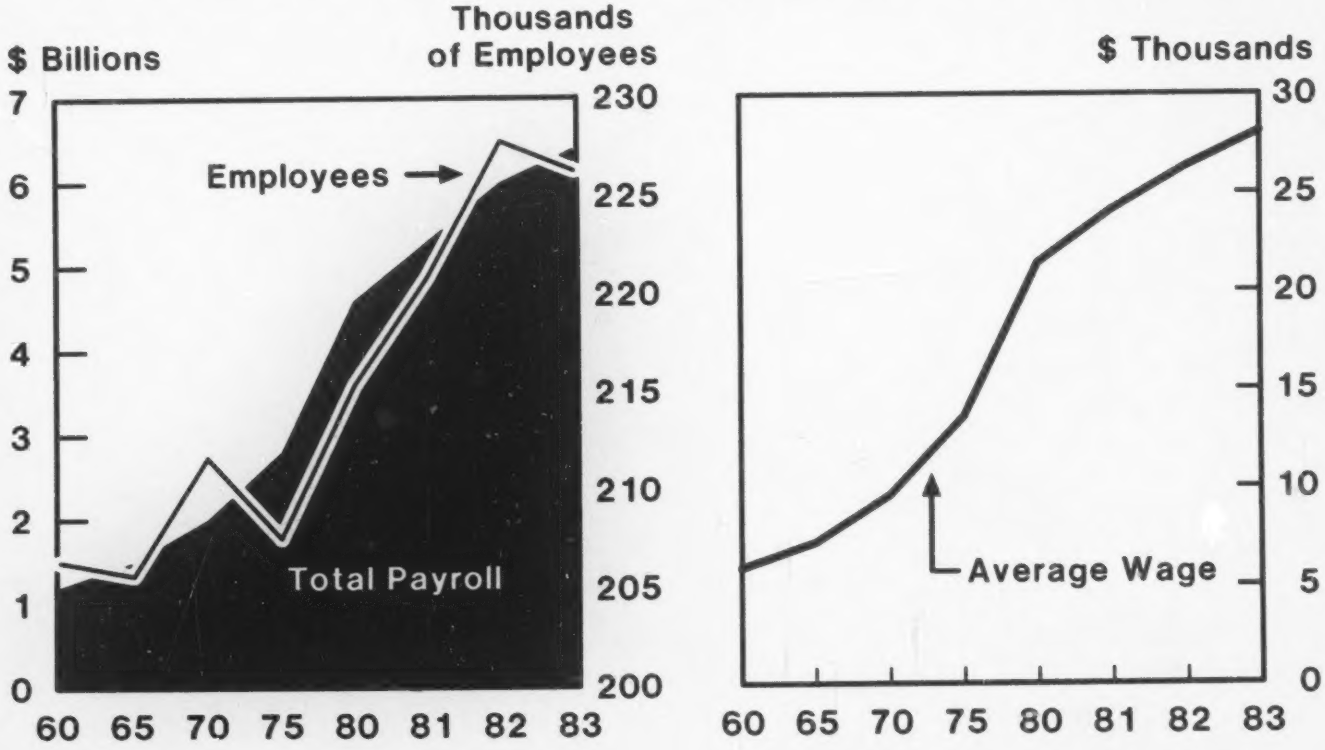
SECTION 17
PERSONNEL DATA

	1983	% Change 83/82
Gas Utility Employees		
(Thousands)		
Total	226.3	− 0.6
Distribution	45.8*	+ 9.8
Transmission	46.8	− 3.2
Integrated	70.1*	− 5.4
Combination	51.3	− 0.2
Municipals	12.3	+ 1.3

*Data not directly comparable to previous years.

CHART 17-1

GAS UTILITY INDUSTRY PAYROLL, EMPLOYEES AND AVERAGE WAGE



REFERENCE: TABLE 17-1

PERSONNEL DATA

TABLE 17-1
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL, 1960-1983

Year	Average Number of Employees (Thousands)	Total Payroll (Thousands)	Average Wage per Employee
1960	206.4	$1,214,565	$ 5,880
1961	206.1	1,268,437	6,150
1962	204.4	1,316,057	6,440
1963	204.5	1,377,729	6,740
1964	204.8	1,420,754	6,940
1965	205.7	1,480,397	7,200
1966	207.4	1,556,577	7,500
1967	207.2	1,640,397	7,920
1968	208.6	1,759,784	8,440
1969	210.2	1,890,490	8,990
1970	211.7	2,021,197	9,550
1971	213.7	2,142,892	10,028
1972	215.4	2,321,932	10,780
1973	215.2	2,449,075	11,381
1974	213.4	2,606,903	12,216
1975	207.6	2,817,150	13,570
1976	205.1	3,044,605	14,844
1977	208.8	3,371,856	16,149
1978	209.8	3,647,057	17,383
1979	214.6	4,134,270	19,265
1980	215.4	4,612,791	21,415
1981	220.9	5,313,445	24,057
1982[R]	227.8	5,998,666	26,342
1983	226.3	6,365,243	28,128

R—Revised.

TABLE 17-2
GAS UTILITY INDUSTRY EMPLOYEES AND PAYROLL BY TYPE OF PAYROLL AND TYPE OF COMPANY, 1960-1983

(Thousands)

	1960	1965	1970	1975	1980	1982[R]	1983
Total							
Employees	206.4	205.7	211.7	207.6	215.4	227.8	226.3
Payroll—Total	$1,214,565	$1,480,397	$2,021,197	$2,817,150	$4,612,791	$5,998,666	$6,365,243
Operating	914,438	1,146,226	1,606,321	2,292,448	3,652,941	4,732,216	5,055,824
Construction	209,082	262,792	325,546	380,835	627,706	811,684	856,289
Miscellaneous	62,045	71,379	89,330	143,867	332,144	454,766	453,130
Investor Owned—Total							
Employees	*	*	*	196.3	202.7	215.7	214.0
Payroll—Total	*	*	*	$2,675,092	$4,379,653	$5,726,541	$6,073,173
Operating	*	*	*	2,184,446	3,463,437	4,494,466	4,813,325
Construction	*	*	*	357,221	594,326	786,476	817,700
Miscellaneous	*	*	*	133,425	321,890	445,599	442,148
Distribution							
Employees	*	*	*	51.3	52.1	41.7[a]	45.8[a]
Payroll—Total	*	*	*	$697,552	$1,040,436	$ 956,275	$1,135,716
Operating	*	*	*	567,947	831,076	787,379	936,005
Construction	*	*	*	98,257	152,964	134,360	154,136
Miscellaneous	*	*	*	31,348	56,396	34,536	45,575
Transmission							
Employees	31.4	29.6	32.4	37.2	45.2	48.4	46.8
Payroll—Total	$199,701	$228,493	$331,955	$574,275	$1,178,706	$1,543,492	$1,613,172
Operating	166,064	187,521	266,685	470,418	873,199	1,167,527	1,216,066
Construction	21,955	30,650	44,869	53,832	108,974	133,572	137,290
Miscellaneous	11,682	10,322	20,401	50,025	196,533	242,393	259,816
Integrated							
Employees	*	*	*	55.4	53.2	74.1[a]	70.1[a]
Payroll—Total	*	*	*	$676,967	$1,061,520	$1,773,596	$1,776,262
Operating	*	*	*	548,291	873,837	1,413,718	1,460,586
Construction	*	*	*	91,439	138,062	214,921	201,600
Miscellaneous	*	*	*	37,237	49,621	144,957	114,076
Combination							
Employees	*	*	*	52.4	52.2	51.5	51.3
Payroll—Total	*	*	*	$726,298	$1,098,991	$1,453,178	$1,548,023
Operating	*	*	*	597,790	885,325	1,125,842	1,200,668
Construction	*	*	*	113,693	194,326	303,623	324,674
Miscellaneous	*	*	*	14,815	19,340	23,713	22,681

a. Data not directly comparable to previous years due to reclassification of several companies.
R—Revised.
*Not available.

PERSONNEL DATA

TABLE 17-3
EMPLOYEE ACCIDENT INCIDENT AND SEVERITY RATES OF SELECTED INDUSTRIES, 1982[a]

	Rate	
	Incident	Severity
Gas Utilities[b]	**2.52**	**14.28**
All Industries	**2.11**	**18.96**
Agricultural Chemicals	1.01	19.80
Aircraft	.61	16.39
Air Transportation	4.64	14.01
Bituminous Coal	3.40	30.59
Cement	1.88	26.60
Chemical	.64	21.87
Communications	.79	15.19
Construction	2.92	20.20
Electric, Electronic Equipment	1.12	16.96
Electric Service	1.62	20.99
Fabricated Metal Products	2.33	19.74
Food	3.65	18.90
Furniture and Fixtures	1.75	18.29
General Government	7.05	16.74
Iron and Steel Foundries	2.66	18.42
Leather	1.53	15.69
Lumber and Wood Products	4.66	25.32
Machinery, excluding Electrical	1.94	18.56
Meat Products	5.18	16.02
Metal Mining	3.02	48.67
Motor Vehicles	1.36	20.59
Nonferrous Rolling, Drawing	2.27	23.79
Nonmetallic Minerals	2.45	36.33
Oil and Gas Extraction	1.02	20.59
Paper	2.65	24.91
Petroleum and Coal Products	1.34	24.63
Pipeline Transportation	.67	22.39
Primary Nonferrous Metals	1.18	34.75
Printing and Publishing	2.75	20.36
Railroad Equipment	4.09	39.36
Railroad Transportation	2.18	24.77
Rubber and Plastics	2.32	21.12
Services	2.98	13.42
Ship and Boat Building	5.62	11.74
Steel	1.32	31.82
Stone, Clay and Glass	3.81	21.26
Textile	.69	27.54
Transit	7.12	13.34
Trucking	6.54	21.71
Water Transportation	2.87	38.33
Wholesale and Retail Trade	2.00	17.50

a. Incident rate is the number of disabling injuries per 100 full-time employees. Severity rate is average lost workdays per injury.
b. Gas figures derived from National Safety Council data.
Source: National Safety Council, *Work Injury and Illness Rates*, 1983.

TABLE 17-4
DEATH RATES OF WORKERS, BY MAJOR INDUSTRIES, 1982

	Deaths	
	Total	Per 100,000 Workers
All Industries	**11,200**	**11**
Agriculture	1,800	52
Construction	2,100	40
Government	1,500	10
Manufacturing	1,000	5
Mining, Quarrying, Oil and Gas Wells	600	55
Service	1,700	6
Trade	1,100	5
Transportation and Public Utilities	1,400	26
Gas*	34	12

*Included in Transportation and Public Utilities. Data derived from A.G.A. *Report of Occupational Injuries and Illnesses in the Gas Utility and Transmission Industry in the United States*, and does not represent total industry.
Source: National Safety Council; *Accident Facts*, 1983; gas figures derived from A.G.A. data.

TABLE 17-5
EMPLOYEE DISABLING INJURY RATES, BY TYPE OF GAS UTILITY, 1960-1983

Z16.1 DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies[a]	
	Reporting Companies		Rate[b]		Rate		Rate		Rate	
Year	Number	Average Employees	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]	Frequency[c]	Severity[d]
1960	554	195,591	7.01	563	7.45	616	5.83	332	e	e
1961	581	192,287	6.57	481	6.73	396	5.85	868	e	e
1962	579	194,615	6.41	490	6.69	467	5.81	630	e	e
1963	581	196,376	6.27	546	6.47	439	5.37	1.020	e	e
1964	600	197,023	5.87	465	5.96	416	5.17	644	e	e
1965	625	198,815	5.69	402	5.93	314	4.34	753	e	e
1966	674	200,600	5.85	623	6.10	451	4.55	1,382	e	e
1967	642	202,427	5.69	454	6.07	376	4.32	814	e	e
1968	652	199,442	6.06	533	6.48	478	4.25	799	e	e
1969	703	204,771	6.16	525	6.54	500	4.37	589	e	e
1970	719	200,493	6.34	548	6.66	522	5.02	686	e	e
1971	833	210,589	7.15	473	7.48	444	5.70	634	e	e
1972	736	205,371	8.38	535	8.98	495	5.88	762	e	e
1973	708	207,423	8.18	547	8.77[f]	373[f]	5.67	1,287	e	e
1974	644	208,283	9.08	357	9.75[g]	362[g]	6.12	333	e	e
1975	515	193,957	9.27	570	9.99[g]	518[g]	6.37	785	e	e
1976	407	153,538	11.17	365	12.87[g]	403[g]	5.31	236	e	e

OSHA DATA

	All Reporting Gas Utilities				Natural Gas Distribution and Integrated Companies		Natural Gas Transmission Companies		Natural Gas Combination Companies	
	Reporting Companies		Rate		Rate		Rate		Rate	
Year	Number	Average Employees	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]	Incident[h]	Severity[i]
1976	411	223,240	2.38	20.00	3.27	18.78	1.08	39.24	1.96	19.63
1977	433	243,773	2.46	18.01	3.31	15.86	1.09	20.63	2.00	20.54
1978	423	236,661	2.46	17.11	3.41	14.86	1.10	22.51	2.10	18.90
1979	443	256,797	2.52	16.76	3.57	15.01	1.16	24.71	1.97	17.81
1980	453	262,173	2.62	18.20	3.45	14.28	1.15	32.17	2.26	21.34
1981	437	278,402	2.52	25.09	3.43	17.08	1.09	26.34	2.17	37.53
1982	424	275,725	2.33	18.36	3.39	13.63	1.15	23.10	1.90	24.30
1983	431	272,236	2.33	18.02	3.44	13.91	1.09	20.55	1.82	24.66

a. Included in "Natural Gas Distribution" and "Integrated Companies" under Z16.1 data.
b. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
c. Frequency Rate is number of disabling injuries per million man-hours worked for each injury resulting in a minimum of one day's loss of time.
d. Severity Rate is number of days lost due to disabling injuries, per million man-hours worked.
e. Not available under Z16.1 data.
f. Includes "Manufactured and Mixed Gas."
g. Includes "Manufactured and Mixed Gas" and "Liquefied Petroleum Gas."
h. Incident Rate is total injuries per 100 full-time employees.
i. Severity Rate is average lost workdays per injury.
NOTE: Companies are now required to report under the Occupational Safety and Health Act (OSHA) instead of ANST Standard Z16.1.
Source: A.G.A. *Disabling Injury Experience,* 1983.

APPENDIX A
GLOSSARY

(This is an abbreviated list of gas utility industry definitions. A complete list is contained in the *Glossary for the Gas Industry*).

Accident Frequency Rate: See Injury Frequency Rate, Disabling.

Accident Incident Rate: See Injury Incident Rate.

Accident Severity Rate: See Injury Severity Rate, Disabling.

Additions (To Utility Plant):

Gross Additions: Cost of construction, generally including overhead and allowance for funds used during construction (interest during construction), cost of land, land rights, and mineral interests, gas capitalized in underground storage, used facilities acquired, and the purchase cost of an acquired operating unit or system of utility plant. See Construction Expenditures.

Net Additions: Gross additions less retirements and adjustments of utility plant. It is the net change in utility plant between two dates.

Anthracite: A hard coal containing little volatile matter, low ash and generally having a heating value of 11,000–15,000 Btu/lb.

Associated Natural Gas: See Gas, Natural.

Associated Number of Customers: See Customers, Average Number of.

Average Revenue Per Unit of Gas Sales (By Class of Service): Revenue from the sale of gas to a class of service, exclusive of forfeited discounts and penalties, divided by the corresponding number of units sold. Units may be therms, Btu's or cubic feet.

Barrel (Oil): A volumetric unit of measurement equivalent to 42 U.S. Standard gallons.

Bituminous Coal: Ranking of soft coal generally having a heating value of 11,000–14,000 Btu/lb., high in volatile matter and ash.

Blue Gas: See Water Gas.

Boiler Fuel Gas: Natural gas used as a fuel for the generation of steam (or hot water).

Bottled Gas: In the industry, liquefied petroleum gas contained under moderate pressure in cylinders, sometimes referred to as bottles. Usually propane and/or butane.

British Thermal Unit (Btu): The quantity of heat that must be added to one pound of water to raise its temperature one degree Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury.

By-Products (Residuals): Secondary products which are obtained from the processing of a raw material and have commercial value. They may be the residues of the gas production process, such as coke, tar, and ammonia, or they may be the result of further processing of such residues, such as ammonium sulphate.

Capacity, Effective: The maximum load which a machine, apparatus, device, plant or system is capable of carrying under existing service conditions.

Carbon Black: Almost pure amorphous carbon consisting of extremely fine particles, usually produced from gaseous or liquid hydrocarbons by controlled combustion with a restricted air supply or by thermal decomposition.

Casinghead Gas: Unprocessed natural gas containing gasoline vapors produced from a reservoir containing oil.

City Gate (Town Border Station): See Gate Station.

Class of Service: Defines the type of customer. The common classes of service applied to ultimate consumers, and considerably more completely described in the A.G.A. publication "Definitions of a Gas Customer and Classes of Service for Industry Reporting Purposes" are:

1. **Residential Service**
   Covers service to customers for domestic purposes (single, multifamily or mobile homes, etc.). In residential service, the number of housing units within a structure determines the customer classification.
2. **Commercial Service**
   Covers service to customers engaged in wholesale or retail trade, agriculture, communications, finance, fisheries, forestry, government, insurance, real estate, transportation, etc., and to customers not directly involved in other classes of service.
3. **Industrial Service**
   Covers service to customers engaged primarily in a process which either involves the extraction of raw materials from the earth, or a change of raw or unfinished materials into another form or product.
4. **Other Services**
   Service to municipalities or divisions (agencies) of State or Federal Governments under special contracts or agreements or service classifications, which are applicable only to public authorities using gas for general or institutional purposes. (Exclude sales properly included under items 2 or 3 above, such as manufacturing arsenals or publicly-owned power systems).
5. **Sales for Resale** (Uniform System of Accounts, 483)
   Service to other utility companies, governmental agencies (municipal, county, state or federal), rural cooperatives, etc., for distribution and resale to ultimate customers. Service to other utilities for use by them and not for distribution and resale, is to be classified as residential, commercial, or industrial, depending upon the primary business or economic activity.

Coal Gas: Manufactured gas made by distillation or carbonization of coal in a closed coal gas retort, coke oven, or other vessel.

Combination Utility: Utility which supplies both gas and some other utility service (electricity, water, etc.). For purposes of A.G.A. statistics, a combination utility derives at least 5 percent but less than 95 percent of its total operating revenues from gas operations. See Appendix C for a list of combination companies.

Commercial Service: See Class of Service.

APPENDIX A

Communities (Served): A community is a contiguous built-up area, incorporated or unincorporated, commonly recognized as a separate entity. Any incorporated area and its adjacent built-up unincorporated area may be counted as only one community.

Compressor Horsepower: See Horsepower, Compressor.

Compressor Station: Any permanent combination of facilities which supplies the energy to move gas at increased pressure from fields, in transmission lines or into storage. For reporting to A.G.A. include field (other than temporary) line, and storage compressor stations of producing and transmission companies; distribution companies should include underground storage compressor stations and stations used for transporting gas between local distribution systems but not booster or pumping stations used within a local distribution system.

Condensate: The liquid resulting when a vapor is subjected to cooling and/or pressure reduction. Also, liquid hydrocarbons condensed from gas and oil wells. Compare Liquids, under Gas, Natural.

Construction Expenditures: Cost of construction, including overheads and allowance for funds used during construction, for additions to, renewals, and replacements of plant facilities, but excluding the purchase cost of an acquired operating unit or system of utility plant, accounting transfers and adjustments to utility plant, and cost to remove plant facilities from service.

Conversion to Natural Gas: Changing the gas service to ultimate customers from a fuel other than natural gas to natural gas, including adjustment of consumers' appliances to perform satisfactorily with natural gas. Natural gas does not necessarily mean straight natural gas; stabilizing the heat content of the sendout gas by diluent gases or enriching gases is not considered to change the basic character of natural gas. For the purpose of uniform reporting a company should be considered a natural gas company when 95 percent of the system has been converted.

Cubic Foot: The most common unit of measurement of gas volume. It is the amount of gas required to fill a volume of one cubic foot under stated conditions of temperature, pressure, and water vapor.

Current Gas: See Storage, Underground.

Cushion Gas: See Base Gas under Storage, Underground.

Customer: An individual, firm or organization which purchases service at one location under one rate classification, contract, or rate schedule. If service is supplied at more than one location or under more than one rate schedule, each location and rate schedule shall be counted as a separate customer unless the consumption at the several locations is combined before billing and billed on one rate schedule.

Customers, Average Number of: The average number of customers is determined by summing the customers for each of the periods involved and dividing by the number of periods. See Customer.

Customers, End of Year: The number of customers at December (or the last month of a fiscal year) including all billing cycles. See Customers, Average Number of.

Degree Day, Heating: A measure of the coldness of the weather experienced, based on the extent to which the daily mean temperature falls below a reference temperature, usually 65°F. For example, on a day when the mean outdoor dry-bulb temperature is 35°F., there would be 30 degree days experienced. A daily mean temperature usually represents the sum of the high and low readings divided by two.

Demand: The rate at which gas is delivered to or by a system, part of a system, or a piece of equipment, expressed in cubic feet or therms or multiples thereof, for a designated period of time called the demand interval. Compare Load.

Design Day: A 24-hour period of demand which is used as a basis for planning gas capacity requirements.

Design Day Availability: The amount of each type of gas arranged to be available on the design day and the maximum combination of such supplies. (In the case of purchased natural gas, the maximum day allocation, maximum day contract quantity, or FERC authorization).

Design Day Temperature: The mean temperature assumed for the Design Day.

Dissolved Natural Gas: See Gas, Natural.

Distribution Company, Gas: Company which obtains the major portion of its gas operating revenues from the operation of a retail gas distribution system, and which operates no transmission system other than incidental connections within its own system or to the system of another company. For purposes of A.G.A. statistics, a distribution company obtains at least 95 percent of its gas operating revenues from sales to ultimate customers *and* classifies at least 95 percent of mains (other than service pipe) as distribution. Compare Integrated Company, Gas; Transmission Company, Gas. See Appendix C for a list of Distribution Companies.

Distribution Mains: See System Type.

Distribution System, Gas: See System Type.

Dry Natural Gas: See Gas, Natural.

Enriching: Increasing the heat content of a gas by mixing with it a gas of higher Btu content.

Exchange Gas: Gas that is received from (or delivered to) another party in exchange for gas delivered to (or received from) such other party.

Extraneous Gas: See Storage, Underground.

Field Pipeline: See System Type.

APPENDIX A

Firm Service: Service offered to customers (regardless of Class of Services) under schedules or contracts which anticipate no interruptions. The period of service may be for only a specified part of the year as in Off-Peak Service. Certain firm service contracts may contain clauses which permit unexpected interruption in case the supply to residential customers is threatened during an emergency. Compare Interruptible Service; and Off-Peak Service.

Foreign Gas: See Storage, Underground.

Gallon: A unit of liquid measure. The U.S. gallon contains 231 cubic inches or 8.3359 pounds avoirdupois of distilled water at its maximum density and with the barometer at 30 inches.

Gas, Dry: See Gas, Natural.

Gas, Liquefied Petroleum (LPG): A gas containing certain specific hydrocarbons which are gaseous under normal atmospheric conditions, but can be liquefied under moderate pressure at normal temperatures. Propane and butane are the principal examples.

Gas, Manufactured: A gas obtained by destructive distillation of coal, or by the thermal decomposition of oil, or by the reaction of steam passing through a bed of heated coal or coke or catalyst beds. Examples are coal gases, coke oven gases,producer gas, blast furnace gas, blue (water) gas, carbureted water gas. Btu content varies widely.

Gas, Natural: A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

Associated: Free natural gas in immediate contact, but not in solution with crude oil in the reservoir.

Dissolved: Natural gas in solution in crude oil in the reservoir.

Dry: Gas whose water content has been reduced by a dehydration process. Gas containing little or no hydrocarbons commercially recoverable as liquid product. Specified small quantities of liquids are permitted by varying statutory definition in certain states.

Liquefied (LNG): Natural gas which has been liquefied by reducing its temperature to minus 260°F at atmospheric pressure. It remains a liquid at —116°F and 673 psig. In volume it occupies 1/600 of that of the vapor.

Liquids: Those liquid hydrocarbon mixtures which are gaseous at reservoir temperatures and pressures, but are recoverable by condensation or absorption. Natural gasoline and liquefied petroleum gases fall in this category.

Non-Associated: Free natural gas not in contact with, nor dissolved in, crude oil in the reservoir.

Sour: Gas found in its natural state, containing such amount of compounds of sulphur as to make it impractical to use, without purifying, because of its corrosive effect on piping and equipment.

Substitute: A gas manufactured from carbonaceous material whose characteristics are substantially interchangeable with natural gas. The resultant gas is composed primarily of methane. At this writing, SNG feedstocks are the light hydrocarbons, propane, butane and the naphthas. Development is underway of processes for production from heavier feedstocks, coal, peat and solid wastes.

Sweet: Gas found in its natural state, containing such small amount of compounds of sulphur that it can be used without purifying, with no deleterious effect on piping and equipment.

Wet: Wet natural gas is unprocessed natural gas or partially processed natural gas, produced from strata containing condensable hydrocarbons. The term is subject to varying legal definitions as specified by certain state statutes.

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Gas, Oil: A gas resulting from the thermal decomposition of petroleum oils, composed mainly of volatile hydrocarbons and hydrogen. The true heating value of oil gas may vary between 800 and 1600 Btu per cubic foot depending on the operating conditions and feedstock properties.

Gas, Substitute Natural (SNG): See Gas, Natural.

Gas Transported for Others: That volume of gas owned by another company received into and transported through any part of the transmission system under a transportation tariff.

Gate Station: Generally, a location at which gas changes ownership, from one party to another, neither of which is the ultimate consumer. It should be noted, however, that the gas may change from one system to another at this point without changing ownership. Also referred to as city gate station, town border station or delivery point.

Gathering Pipeline: See System Type.

Heating Value: The amount of heat produced by the complete combustion of a unit quantity of fuel. The gross or higher heating value is that which is obtained when all of the products of combustion are cooled to the temperature existing before combustion, the water vapor formed during combustion is condensed, and all the necessary corrections have been made. The net or lower heating value is obtained by subtracting the latent heat of vaporization of the water vapor formed by the combustion of the hydrogen in the fuel, from the gross or higher heating value.

Holder, Gas: A gas-tight receptacle or container in which gas is stored for future use. (1) at approximately constant pressure (low pressure containers) in which case the volume of the container changes; and (2) in containers of constant volume (usually high pressure containers) in which case the quantity of gas stored varies with the pressure.

Holding Company: A gas holding company is a corporation that is formed for the purpose of owning stock in other gas companies.

Horsepower, Compressor: The horsepower rating on the nameplate.

Horsepower, Mechanical: A unit of power numerically equal to a rate of 33,000 foot-pounds of work per minute or 550 foot-pounds per second.

Hydrocarbon: A chemical compound composed solely of hydrogen and carbon. The compounds having a small number of carbon and hydrogen atoms in their molecule are usually gaseous; those with a larger number of atoms are liquid and the compounds with the largest number of atoms are solid.

Industrial Service: See Class of Service.

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Injury Frequency Rate, Disabling: Number of disabling injuries per million man-hours worked. Such injuries include disabilities and fatalities arising out of and occurring during the course of employment. A disabling injury is one which renders the employee unable to return to work on one or more days after the injury.

Injury Incident Rate: Number of injuries per 100 full-time employees.

Injury Severity Rate, Disabling: Number of days lost due to disabling per million man-hours worked, including appropriate time charges according to a predetermined schedule for permanent disability cases and/or fatalities. Subsequent to 1976, Severity rate is average lost workdays per injury.

Integrated Company, Gas: A company which obtains a significant portion of its gas operating revenues from the operations of both a retail gas distribution system and gas transmission system. For purposes of A.G.A. statistics, an integrated company obtains less than 95 percent but more than 5 percent of its gas operating revenues from either its retail or transmission operations or does not meet the classification of mains established for distribution or transmission companies. Compare Distribution Company, Gas; Transmission Company, Gas. See Appendix C for a list of Integrated Companies.

Interruptible Service: Low priority service offered to customers under schedules or contracts which anticipate and permit interruption on short notice, generally in peak-load seasons, by reason of the claim of firm service customers and higher priority users. Unlike Off-Peak Service, gas is available at any time of the year if the supply is sufficient.

Line Pack, Gas Delivered from: That volume of gas delivered to the markets supplied by the net change in pressure in the regular system of mains, transmission and/or distribution. For example, the change in the content of a pipeline brought about by the deviation from steady flow condition.

Liquefied Natural Gas (LNG): See Gas, Natural.

Liquefied Petroleum Gas (LPG): See Gas, Liquefied Petroleum.

Load: The amount of gas delivered or required at any specified point or points on a system; load originates primarily at the gas consuming equipment of the customers. Also, to load a pressure regulator is to set the regulator to maintain a given pressure as the rate of gas flow through the regulator varies. Compare Demand.

Local Storage: See Storage, Local.

Mcf: 1000 cubic feet.

MMBtu: 1,000,000 Btu.

MMcf: 1,000,000 cubic feet.

Main, Gas: A distribution line that serves as a common source of supply for one or more than one gas service line.

Distribution Mains: See System Type.
Field and Gathering Pipeline: See System Type.
Transmission Pipeline: See System Type.

Manufactured Gas: See Gas, Manufactured.

Marketable Natural Gas: Raw gas from which certain hydrocarbons and non-hydrocarbon compounds have been removed by processing. Marketable natural gas is often referred to as pipeline gas, residue gas, or sales gas.

Maximum Day:
Allocation: See Design Day Availability.
Sendout: See Sendout, Maximum Day.

Minimum Day: See Sendout, Minimum Day.

Naphtha: Any of various volatile, often flammable liquid hydrocarbon mixtures used chiefly as solvents and diluents and as raw materials for conversion to gasoline and substitute natural gas (SNG).

Native Base Gas: See Storage, Underground.

Natural Gas: See Gas, Natural.

Natural Gas, Associated: See Gas, Natural.

Natural Gas, Dissolved: See Gas, Natural.

Natural Gas, Dry: See Gas, Natural.

Natural Gas, Liquefied: See Gas, Natural.

Natural Gas Liquids: See Gas, Natural.

Natural Gas, Non-Associated: See Gas, Natural.

Natural Gas Reserves: See Reserves.

Natural Gas, Sour: See Gas, Natural.

Natural Gas, Sweet: See Gas, Natural.

Natural Gas, Wet: See Gas, Natural.

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Natural Gasoline: Liquid removed from natural gas by absorption or refrigeration and containing hydrocarbons heavier than butane.

Off-Peak Service: Service made available on special schedules or contracts but only for a specified part of the year during the off-peak season. Compare Interruptible Service.

Oil Gas: See Gas, Oil.

Oil, Heavy: Heavy, thick and viscous oils. Usually refinery residuals commonly specified as grades 5 and 6.

Oil, Light: Generally, all oils lighter than residual fuel oils No. 5 and No. 6. Oils that have a low specific gravity, usually products of controlled distillation of crude oil but also including by-product benzol and toluol.

Peak Day: The 24-hour day period of greatest total gas sendout. Compare Design Day.

Peak Shaving: Supplying fuel gas for distribution system from an auxiliary source (of limited supply higher cost) during periods of maximum demand, when the primary source is not adequate.

Pipeline: All parts of those physical facilities through which gas is moved in transportation, including pipe, valves and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and fabricated assemblies. See System Type.

Pressure, Absolute (psia): Pressure above that of a perfect vacuum. It is the sum of gauge pressure and atmospheric pressure.

Pressure, Gauge (psig): Pounds per square inch above atmospheric pressure.

Producer Gas (Also, Manufactured Gas): A combustible gas made in a furnace or apparatus by circulating air or a mixture of air and steam through a layer of incandescent material consisting chiefly of carbon monoxide, hydrogen and nitrogen.

Propane (C_3H_8): A gaseous member of the paraffin series of hydrocarbons, which when liquefied under pressure is one of the components of liquefied petroleum (LP) gas. Contains approximately 2,500 Btu per cubic foot (at 60°F and 30″ mercury, and 91,740 Btu per gallon).

Recoverable Natural Gas Reserves: See Reserves, Recoverable Natural Gas.

Refinery Gas: See Gas, Oil.

Reforming: A chemical process using heat in presence of a catalyst to break down a substance into desired components, such as in the reforming of natural gas or light oils into lower Btu fuel gas.

Repressuring: Forcing gas, under pressure, into the oil reservoir in an attempt to increase the recovery of crude oil; also done with water.

Resale Service: See Class of Service, Sales for Resale.

Reserves: Refers to the bank of natural resources, such as natural gas, natural gas liquids, petroleum, coal, lignite, and energy available from water power, and solar and geothermal energy.

Estimated Potential Natural Gas: Refers to an estimate of the ultimate finding of natural gas in a specified area, whether or not presently considered proved or recoverable.

Estimated Proved Natural Gas: An estimated quantity of natural gas which analysis of geologic and engineering data demonstrates with reasonable certainty to be recoverable in the future from known oil and gas reservoirs, under existing economic and operating conditions. Reservoirs that have demonstrated the ability to produce by either actual production of conclusive formation test are considered proved.

Saturation, Appliance or Customer: The number of specified appliances, or users, divided by the basic units or total potential of the universe involved, i.e., Gas Heating Saturation related to customers is the total number of customers with space heating divided by the total number of customers. Saturation should not be used alone but should be associated with customers, families, households, population or other qualifying terms indicating the universe referred to. For industry statistics, saturation based on customers served is used.

Sendout, Gas: Total gas produced, purchased (including exchange gas receipts), or net withdrawn from underground storage within a specified time interval, measured at the point(s) of production and/or purchase, and/or withdrawal, adjusted for changes in local storage quantity. It comprises gas sales, exchange deliveries, gas used by company and unaccounted for gas. Expressed in various units such as therms, Btu's, cubic feet, etc.

Sendout, Maximum Day: The greatest total gas sendout occurring in a specified 24-hour period. Compare Design Day; Peak Day.

Sendout, Minimum Day: The smallest actual total gas sendout occurring in a specified 24-hour period.

Service (Service Line, Service Pipe): The pipe which carries gas from the main to the customer's meter. Compare Class of Service.

Shrinkage, Natural Gas: The reduction in volume of wet natural gas due to the extraction of some of its constituents, such as hydrocarbon products, hydrogen sulfide, carbon dioxide, nitrogen, helium, and water vapor.

Storage, Buried Pipe (Bottle-Type Holder): A system of storage in especially designed high pressure pipe sections or bottles capable of storing natural gas at pressures near or equal to the pressure of maximum super-compressibility. Not storage in ordinary steel pipe.

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Storage, Local: The storage facilities, other than underground storage, that are an integral part of a distribution system, i.e., on the distribution side of the city gate, whether for manufactured, mixed, natural, liquefied petroleum, or liquefied natural gases.

Storage Mains: Those mains used primarily for injection and withdrawal of gas to and from underground storage.

Storage, Underground: The utilization of subsurface facilities for storing gas which has been transferred from its original location for the primary purposes of load balancing. The facilities are usually natural geological reservoirs such as depleted oil or gas fields or waterbearing sands sealed on the top by an impermeable cap rock. The facilities also may be manmade or natural caverns.

Aquifer Storage: The storage of gas underground in porous and permeable rock stratum, the pore space of which was originally filled with water and in which the stored gas is confined by suitable structure, permeability barriers and hydrostatic water pressure.

Base Gas (Also called cushion gas): The total volume of gas which will maintain the required rate of delivery during an output cycle.

Current Gas: The total volume of gas in a storage reservoir which is in excess of the base gas. Also called Working Gas.

Extraneous Gas: See Stored Gas, this section.

Foreign Gas: See Stored Gas, this section.

Native Gas: The total volume of gas indigenous to the storage reservoir.

Storage Reservoir: That part of the storage zone having a defined limit of porosity and/or permeability which can effectively accept, retain, and deliver gas.

Storage Well: A cased bore hole, extending from the surface into the storage zone, which is used primarily for gas input and/or output purposes.

Stored Gas: Gas physically injected into a storage reservoir.

Ultimate Reservoir Capacity: The total estimated volume of gas that could be contained in storage reservoir when it is developed to the maximum design pressure.

Working Gas: Gas in an underground storage field that is available for market. May also be called Current Gas.

Straight Gas Utility: Company which derives the major portion of its total operating revenue from gas operations. For purposes of A.G.A. statistics, a straight gas utility derives at least 95 percent of its total operating revenues from gas operations.

Sub-bituminous Coal: Ranking of soft coal generally having a heating value of 8,300-13,000 Btu's/lb-high volatile matter and ash.

Substitute Natural Gas: See Gas, Natural.

System Type:

Distribution: Generally mains, services, and equipment which carry or control the supply of gas from the point of local supply to and including the sales meters. The system operates at various pressures as indicated below.

High Pressure: A system which operates at a pressure higher than the standard service pressure delivered to the customer; thus, a pressure regulator is required on each service to control pressure delivered to the customer. Sometimes this is referred to as medium pressure.

Low Pressure or Utilization Pressure: A system in which the gas pressure in the mains and service lines is substantially the same as that delivered to the customers' appliances; ordinarily a pressure regulator is not required on individual service lines.

Field and Gathering: A network of pipelines (mains) transporting natural gas from individual wells to compressor station, processing point, or main trunk pipeline.

Main: The network of distribution piping to which customers' service lines are attached. Generally large pipes are laid in principal streets with smaller laterals extending along side streets and connected at their ends to form a grid; sometimes laterals are brought to dead ends. Compare with Distribution, this section.

Transmission: Pipelines (Mains) installed for the purpose of transmitting gas from a source or sources of supply to one or more distribution centers, or to one or more large volume customers, or a pipeline installed to interconnect sources of supply. In typical cases transmission lines differ from gas mains in that they operate at higher pressures, are longer, and the distance between connections is greater.

Therm: A unit of heating value equivalent to 100,000 British thermal units (Btu).

Transmission Company, Gas: Company which obtains at least 95 per cent of its gas operating revenues from the operation of a gas transmission system and/or from main line sales to industrial customers. For purposes of A.G.A. statistics, a transmission company obtains at least 95 percent of its gas operating revenues from sales for resale and/or transportation of gas for others and/or main line sales to industrial customers *and* classifies at least 95 percent of mains (other than service pipe) as field and gathering, storage and/or transmission. Compare Distribution Company, Gas; Integrated Company, Gas. See Appendix C for a list of Transmission companies.

Transmission Pipeline: See System Type.

Transmission System: See System Type.

Ultimate Customer: The customer who purchases gas for consumption and not for resale purposes.

Ultimate Reservoir Capacity: See Storage, Underground.

Unaccounted for Gas: The difference between the total gas available from all sources and the total gas accounted for as sales, net interchange and company use. This difference includes leakage or other actual losses, discrepancies due to meter inaccuracies, variations of temperature and/or pressure, other variants, particularly due to measurements being made at different times, and in cycle billings, an amount of gas supply used but not billed as of the end of a period. Compare Sendout, Gas.

Underground Storage: See Storage, Underground.

Water Gas (Blue Gas): Made by passing steam over hot coke, or other carbonaceous material; it consists of carbon monoxide and hydrogen with varying amounts of carbon dioxide and nitrogen. It burns with a blue flame.

Well, Wildcat: An exploratory well being drilled in unproven territory, that is, in a horizon from which there is no production in the general area.

Wet Natural Gas: See Gas, Natural.

Working Gas: See Storage, Underground.

APPENDIX B
CONVERSION TABLE

The following are some frequently used units of measure and natural gas equivalents in British thermal units (Btu). Read " = " as "contains" between volumes and energy units.

The national average Btu content per cubic foot is used. For state averages, see page 76.

1 Cubic Foot (cf) = 0.02832 Cubic Meters = 1,026 Btu

1 Therm = 100,000 Btu ≅ 25,200 Kilocalories ≅ 100 Cubic Feet

1 Mcf = 1,000 Cubic Feet = 28.32 Cubic Meters = 1,026,300 Btu

1 M Therm = 100,000,000 Btu ≅ 25,200,000 Kilocalories

1 MMcf = 1,000,000 Cubic Feet = 1,026,300,000 Btu

Conversion examples:
(1) To convert 2,325 MMcf to trillions of Btu:
  (2,325 MMcf) (1,026,300,000 Btu/MMcf)
    = 2,386,147,500,000 Btu
    ≅ 2.386 trillion Btu
(2) To convert 5,000 trillion Btu to millions of cubic feet:
  (5,000 trillion Btu) (1 cf/1,026.3 Btu)
    ≅ 4.872 trillion cf (Tcf)
    ≅ 4,871,870 MMcf
(3) To convert 22,150 million therms to trillions of Btu:
  (22,150 million therms) (100,000 Btu/therm)
    = 2,215,000,000 million Btu
    = 2,215 trillion Btu

For comparative purposes, Btu contents of various energy sources other than natural gas are shown below.*

Fuel oil (barrel)	
Distillate	5,825,000 Btu
Residual	6,287,000 Btu
Coal (short ton)	
Bituminous and lignite	21,547,000 Btu
Anthracite	22,800,000 Btu
Electricity (kilowatt-hour)	3,412 Btu
Natural gas liquids (barrel)	3,859,000 Btu

*Department of Energy, Energy Information Administration, *Monthly Energy Review*, March 1984.

APPENDIX C
COMPANY LISTINGS

Shown below are 100 selected companies, 25 for each company type, as used in the financial and other sections of this publication. These lists are *not* meant to be *comprehensive*. Inclusion on this list does not imply individual company data may be released.

Distribution

Alabama Gas Corporation
Berkshire Gas Company, The
Boston Gas Company
Chattanooga Gas Company
Columbia Gas of Kentucky, Inc.
Columbia Gas of Ohio, Inc.
Columbia Gas of Pennsylvania, Inc.
Columbia Gas of West Virginia, Inc.
Elizabethtown Gas Company
ENTEX, Inc.
Gas Service Company, The
Great Falls Gas Company
Minnesota Gas Company
Mississippi Valley Gas Company
North Central Public Service Company
North Shore Gas Company
Northwest Natural Gas Company
Peoples Gas System, Inc.
Providence Gas Company
Richmond Gas Corp.
Southern Connecticut Gas Company, The
Washington Gas Light Company
Washington Natural Gas Company
Wisconsin Gas Company
Wisconsin Natural Gas Company

Transmission

Alabama Tennessee Natural Gas Co.
Algonquin Gas Transmission Company
ANR Pipeline Company
Colorado Interstate Gas Company
Columbia Gas Transmission Corporation
Columbia Gulf Transmission Company
East Tennessee Natural Gas Company
El Paso Natural Gas Company
Houston Natural Gas Corporation
Midwestern Gas Transmission Company
Natural Gas Pipeline Co. of America
Northwest Central Pipeline Company
Northwest Pipeline Corporation
Pacific Gas Transmission Company
Pacific Lighting Service Company
Panhandle Eastern Pipe Line Company
Southern Natural Gas Company
Texas Eastern Transmission Corporation
Texas Gas Transmission Corporation
Transco Companies, Inc.
Transok Pipe Line Company
Transwestern Pipeline Company
Trunkline Gas Company
United Gas Pipeline Company
Western Slope Gas Company

Integrated

Arkansas Louisiana Gas Company
Arkansas Oklahoma Gas Corporation
Arkansas Western Gas Company
Associated Natural Gas Company
Corning Natural Gas Company
Equitable Gas Company
Intermountain Gas Company
InterNorth Incorporated
Kokomo Gas & Fuel Company
Lone Star Gas Company
Michigan Consolidated Gas Company
Michigan Gas Utilities Company
Mountain Fuel Supply Company
National Fuel Gas Company
North Carolina Natural Gas Company
North Penn Gas Company
Oklahoma Natural Gas Company
Peoples Natural Gas Co., The
Piedmont Gas Company
South Jersey Gas Company
Southern California Gas Company
Southern Union Gas Company
Southwest Gas Corporation
United Cities Gas Company
Western Kentucky Gas Company

Combination

Arizona Public Service Company
Baltimore Gas and Electric Company
Central Illinois Light Company
Cincinnati Gas and Electric Company
Consolidated Edison Co. of NY Inc.
Consumers Power Company
Dayton Power & Light Company
Florida Public Utilities Company
Illinois Power Company
Iowa Electric Light & Power Company
Iowa-Illinois Gas & Electric Company
Kansas Power & Light Company
Long Island Lighting Company
Louisville Gas & Electric Company
Montana-Dakota Utilities Company
Montana Power Company
Niagara-Mohawk Power Corporation
Northern Indiana Public Service Company
Pacific Gas & Electric Company
Philadelphia Electric Company
Public Service Co. of Colorado
Public Service Electric & Gas Company
San Diego Gas & Electric Company
Virginia Electric & Power Company
Wisconsin Public Service Corporation

APPENDIX D
GAS REQUIREMENTS COMMITTEE, NATURAL GAS CONSUMPTION

The Gas Requirements Committee (GRC) is a subcommittee of the Gas Demand Committee, a board-level committee of the American Gas Association. The GRC has been publishing reports on gas consumption since 1964, and is considered one of the three major sources of comprehensive data on natural gas consumption. The Energy Information Agency (EIA) within the U.S. Department of Energy and the American Gas Association are the other two. The Statistics and Related Economics Committee of the A.G.A. has decided to include the GRC data on natural gas consumption for the first time in this edition as part of the effort to continually improve the usefulness of the data provided in *Gas Facts*.

Comparison of consumption figures published by the three above-mentioned sources for any given year would result in some discrepancies. Certainly one reasonable explanation is that the three groups use different methods in the collection and compilation of natural gas consumption data. The major differences are caused by varying definitions, sample sizes, and points of measurement.

The GRC measure of consumption is defined as adding together the end-use consumption of all gas users including company use, unaccounted for gas and field use on a national basis only. The EIA measure of consumption is defined as the sum of deliveries to consumers, lease and plant fuel, and pipeline fuel. The A.G.A. measure of consumption is restricted to sales to consumers that are made by gas utility companies *only* and, therefore, is a subset of total United States gas consumption.

It is not the intention of the Statistics and Related Economics Committee to reconcile the differences among the reported consumption data. Rather, the reader should be aware that three sources of data exist. If the reader wishes to further analyze the GRC or EIA consumption data, it is reported in the GRC *Future Gas Consumption in the United States* reports or the EIA *Natural Gas Annual* reports.

The subsequent pages excerpt the following information from GRC publications: United States gas consumption by state, region and class of service—1983, total commercial and industrial consumption by standard industrial classification—1983, and United States gas consumption by class of service, 1973-1983.

1983
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(MMCF AT 1000 BTU PER CUBIC FOOT)

	Region and State	Firm		
		Residential	Commercial	Industrial
(1)	**United States Total**			
(2)	**Field Use**			
(3)	**Total Excluding Field Use**	**4,429,538**	**2,179,757**	**3,763,706**
(4)	**1. New England**	**139,117**	**68,355**	**28,855**
(5)	Connecticut	31,163	16,105	10,237
(6)	Maine	541	1,124	602
(7)	Massachusetts	88,496	42,818	14,079
(8)	New Hampshire	4,330	3,079	1,659
(9)	Rhode Island	13,287	4,364	2,218
(10)	Vermont	1,300	865	60
(11)	**2. Appalachian**	**1,309,936**	**558,827**	**669,115**
(12)	Delaware	6,753	3,371	4,706
(13)	District of Columbia	17,791	5,734	400
(14)	Kentucky	64,155	31,761	31,491
(15)	Maryland	71,442	14,472	29,600
(16)	New Jersey	146,969	70,472	37,051
(17)	New York	325,106	133,161	77,480
(18)	Ohio	332,133	143,200	231,232
(19)	Pennsylvania	254,548	116,026	194,374
(20)	Virginia	51,444	22,547	31,379
(21)	West Virginia	39,595	18,083	31,402
(22)	**3. Southeast**	**266,307**	**167,496**	**229,746**
(23)	Alabama	51,525	21,148	60,954
(24)	Florida	16,256	26,545	16,895
(25)	Georgia	93,327	46,446	30,169
(26)	North Carolina	32,614	24,202	56,947
(27)	South Carolina	28,282	12,804	18,710
(28)	Tennessee	44,303	36,351	46,071
(29)	**4. Great Lakes**	**1,019,650**	**497,350**	**586,493**
(30)	Illinois	437,657	205,488	238,215
(31)	Indiana	147,367	65,257	180,384
(32)	Michigan	322,200	159,504	133,269
(33)	Wisconsin	112,426	67,101	34,625
(34)	**5. Northern Plains**	**241,958**	**133,677**	**90,060**
(35)	Iowa	77,570	37,885	58,942
(36)	Minnesota	97,645	50,467	12,361
(37)	Nebraska	46,329	30,957	17,562
(38)	North Dakota	9,685	7,375	247
(39)	South Dakota	10,729	6,993	948
(40)	**6. Mid-Continent**	**278,265**	**121,780**	**142,322**
(41)	Kansas	81,930	33,216	37,040
(42)	Missouri	118,114	49,433	22,258
(43)	Oklahoma	78,221	39,131	83,024
(44)	**7. Gulf Coast**	**373,598**	**223,739**	**1,736,239**
(45)	Arkansas	42,594	23,328	76,764
(46)	Louisiana	72,184	33,866	588,571
(47)	Mississippi	28,241	17,645	49,336
(48)	Texas	230,579	148,900	1,051,568
(49)	**8. Rocky Mountain**	**152,754**	**98,795**	**23,808**
(50)	Colorado	80,764	59,431	15,271
(51)	Montana	16,818	12,737	1,143
(52)	Utah	42,740	16,945	5,350
(53)	Wyoming	12,432	9,682	2,044
(54)	**9. Pacific Southwest**	**586,485**	**248,688**	**133,279**
(55)	Arizona	30,317	25,022	31,393
(56)	California	516,550	191,524	78,087
(57)	Nevada	15,004	8,582	5,957
(58)	New Mexico	24,614	23,560	17,842
(59)	**10. Pacific Northwest**	**50,567**	**44,539**	**59,381**
(60)	Idaho	6,768	8,350	18,472
(61)	Oregon	16,835	14,950	13,504
(62)	Washington	26,964	21,239	27,405
(63)	**11. Pacific**	**10,901**	**16,511**	**64,408**
(64)	Alaska	10,266	15,846	62,735[a]
(65)	Hawaii	635	665	1,673

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[a] Firm industrial for Alaska estimated by using actual 1981 data from Energy Information Administration's *Natural Gas Annual.*

APPENDIX D

1983 (Continued)
UNITED STATES GAS CONSUMPTION BY STATE, REGION & CLASS OF SERVICE

(MMCF AT 1000 BTU PER CUBIC FOOT)

Electric Utilities for Power Generation		Interruptible				
Firm	Interruptible	Commercial	Industrial	Other	Total Consumption	
					17,756,497	**(1)**
					1,024,000	**(2)**
1,721,185	**1,294,767**	**258,656**	**1,903,910**	**1,180,978**	**16,732,497**	**(3)**
–	**29,385**	**12,437**	**36,596**	**16,514**	**331,259**	**(4)**
–	–	4,290	13,178	3,663	78,636	(5)
–	–	–	152	84	2,503	(6)
–	26,196	5,208	18,973	10,800	206,570	(7)
–	–	–	244	341	9,653	(8)
–	3,079	2,479	2,409	1,471	29,307	(9)
–	110	460	1,640	155	4,590	(10)
6,517	**247,643**	**53,295**	**198,998**	**237,216**	**3,281,547**	**(11)**
3,924	–	202	3,652	110	22,718	(12)
–	–	3,800	95	642	28,462	(13)
802	352	518	18,030	25,448	172,557	(14)
313	100	7,072	17,159	16,778	156,936	(15)
–	98,588	6,249	44,009	18,900	422,238	(16)
1,035	144,924	21,299	23,321	43,159	769,485	(17)
397	242	1,512	44,289	39,629	792,634	(18)
46	264	4,810	36,091	79,274	685,433	(19)
–	3,051	7,781	7,728	13,030	136,960	(20)
–	122	52	4,624	246	94,124	(21)
71,156	**110,285**	**36,010**	**325,584**	**77,841**	**1,284,425**	**(22)**
1,138	101	3,138	59,733	17,366	215,103	(23)
69,479	107,202	8,497	51,364	5,482	301,720	(24)
–	1,788	14,059	110,670	22,169	318,628	(25)
538	132	1,092	18,459	9,242	143,226	(26)
1	937	4,549	34,591	6,661	106,535	(27)
–	125	4,675	50,767	16,921	199,213	(28)
16,503	**8,392**	**12,085**	**168,687**	**97,684**	**2,406,844**	**(29)**
10,016	3,250	200	43,069	69,094	1,006,989	(30)
2,303	–	837	32,262	11,671	440,081	(31)
4,122	1,767	1,559	23,449	12,253	658,123	(32)
62	3,375	9,489	69,907	4,666	301,651	(33)
414	**7,778**	**53,310**	**84,437**	**35,006**	**646,640**	**(34)**
398	2,259	7,004	27,672	14,074	225,804	(35)
16	3,996	33,375	37,282	8,672	243,814	(36)
–	1,511	8,090	15,796	7,737	127,982	(37)
–	12	2,726	1,153	4,073	25,271	(38)
–	–	2,115	2,534	450	23,769	(39)
261,350	**32,622**	**33,987**	**211,653**	**113,806**	**1,195,785**	**(40)**
16,835	21,629	17,678	95,662	48,077	352,067	(41)
1	3,380	12,652	36,328	13,005	255,171	(42)
244,514	7,613	3,657	79,663	52,724	588,547	(43)
1,298,559	**352,822**	**5,206**	**520,400**	**446,048**	**4,956,611**	**(44)**
31,996	1	4,268	12,006	18,301	209,258	(45)
234,840	67,708	196	173,204	131,120	1,271,689	(46)
31,291	3,895	732	19,475	33,010	183,625	(47)
1,000,432	281,218	10	315,715	263,617	3,292,039	(48)
1,261	**5,304**	**19,463**	**66,527**	**18,339**	**386,251**	**(49)**
1,261	2,597	12,304	11,585	7,872	191,085	(50)
–	32	322	10,659	2,696	44,407	(51)
–	–	6,145	24,208	4,142	99,530	(52)
–	2,675	692	20,075	3,629	51,229	(53)
52,811	**482,305**	**21,615**	**244,295**	**127,925**	**1,897,403**	**(54)**
20,417	–	–	–	14,775	121,924	(55)
8,738	482,305	21,615	244,295	69,583	1,612,697	(56)
9,901	–	–	–	700	40,144	(57)
13,755	–	–	–	42,867	122,638	(58)
–	**51**	**3,846**	**46,733**	**9,612**	**219,729**	**(59)**
–	–	29	105	(140)	33,584	(60)
–	1	536	18,060	6,986	70,872	(61)
–	50	3,281	28,568	2,766	115,273	(62)
12,614	**18,180**	**2,402**	–	**987**	**126,003**	**(63)**
12,614	18,180	2,213	–	846	122,700	(64)
–	–	189	–	141	3,303	(65)

1983
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(MMCF at 1000 BTU PER CUBIC FOOT)

		Region[a]			
Group	Description	1	2	3	4
01-09	Agriculture, Forestry & Fishing	246	4,049	1,067	7,015
10-14	Mining	8	2,540	5,113	3,242
15-17	Construction	619	4,180	2,531	3,120
20	Food & Kindred Products	4,746	50,476	33,094	91,497
21	Tobacco Manufactures	121	1,641	832	118
22	Textile Mill Products	2,436	10,237	60,961	1,623
23	Apparel & Other Textile Products	170	3,501	5,797	691
24	Lumber & Wood Products	85	3,619	6,680	3,185
25	Furniture & Fixtures	72	2,040	1,124	3,594
26	Paper & Allied Products	3,651	35,480	67,033	43,913
27	Printing & Publishing	437	5,239	984	21,158
28	Chemicals & Allied Products	2,104	98,079	92,932	64,278
29	Petroleum & Coal Products	336	35,335	18,019	30,689
30	Rubber & Misc. Plastics Products	1,238	16,494	10,498	11,147
31	Leather & Leather Products	84	1,347	525	1,705
32	Stone, Clay, Glass & Concrete Products	4,143	97,227	65,406	37,264
331-332	Primary Iron & Steel	1,671	173,832	15,601	149,547
333-339	Primary Nonferrous Metals	2,236	50,833	21,128	54,600
34	Fabricated Metal Products	4,059	42,434	10,683	33,421
35	Machinery, except Electrical	2,712	20,005	3,496	32,703
36	Electric & Electronic Equipment	[illegible]	20,717	5,804	16,189
37	Transportation Equipment	808	24,177	5,954	40,754
38	Instruments & Related Products	1,295	4,818	1,706	1,846
39	Other Manufacturing	1,728	34,193	5,051	32,267
40-48	Transportation	1,464	17,475	2,501	10,584
49	Utility Services other Than Electric Generation	5,763	7,835	1,870	17,481
50-51	Wholesale Trade	1,600	14,781	2,131	11,635
52-57,59	Retail Trade	4,100	34,158	4,006	28,053
58	Restaurants and Drinking Places	4,541	26,774	3,081	20,033
60-64,66,67	Finance & Insurance	756	5,160	689	4,613
65	Real Estate (Apartments)	10,411	74,280	6,216	33,004
70	Hotels & Other Lodging Places	1,116	12,400	2,931	10,210
72-79	Services	3,584	28,928	5,872	46,505
80	Health Services, Hospitals	5,152	48,112	18,909	42,193
82	Education (Schools)	3,866	47,647	13,830	66,548
81,83,84	Legal & Social Services	755	10,880	2,325	4,451
86,88,89	Membership Organization & Misc. Services	1,613	19,150	1,744	16,662
91-97	Public Administration	2,455	22,956	13,889	16,409
99	Non-Classifiable	58	13,013	435	741
	Not Classified by SIC or Unreported	61,249	354,193	236,388	249,927
	Total Commercial & Industrial	**146,243**	**1,480,236**	**758,836**	**1,264,615**

a. For region definition see previous table on p.210.

APPENDIX D

1983 (continued)
TOTAL COMMERCIAL AND INDUSTRIAL CONSUMPTION BY STANDARD INDUSTRIAL CLASSIFICATION

(MMCF at 1000 BTU PER CUBIC FOOT)

Region[a]								
5	6	7	8	9	10	11	Total	Group
8,581	8,159	17,050	2,169	14,274	1,025	–	63,635	01–09
8,598	15,611	20,102	5,930	8,223	3,978	–	73,345	10-14
3,730	1,333	1,330	1,177	2,122	238	–	20,380	15–17
35,968	15,132	34,899	7,615	50,279	19,100	–	342,806	20
5	–	1	–	1	–	–	2,719	21
54	258	1,163	31	3,413	222	–	80,398	22
53	33	1,001	51	706	54	–	12,057	23
5,496	6,615	12,063	224	2,324	5,997	–	46,288	24
435	56	798	32	945	40	–	9,136	25
3,304	3,346	62,746	4,026	20,850	23,539	–	267,888	26
485	176	1,570	144	2,116	168	–	32,477	27
41,004	101,273	863,333	15,799	25,575	15,300	–	1,319,657	28
2,778	38,506	376,183	17,707	117,782	8,120	2,230	647,685	29
2,219	3,072	13,993	199	3,436	124	–	62,420	30
3,296	112	45	186	397	8	–	7,705	31
4,297	26,651	37,123	4,948	41,594	4,081	–	322,734	32
1,120	869	34,511	7,760	12,623	3,149	–	400,683	331-332
5,413	5,406	40,762	5,060	36,971	8,408	–	230,817	333-339
3,355	2,966	10,653	614	12,089	918	–	121,192	34
3,883	310	2,906	983	4,572	801	–	72,371	35
2,358	2,544	4,028	678	5,933	170	–	61,176	36
1,548	4,947	5,778	859	8,618	3,536	–	96,979	37
223	–	342	1,358	1,210	609	–	13,407	38
1,880	3,538	5,061	90	1,311	401	–	85,520	39
2,010	7,743	2,986	4,331	6,536	1,885	–	57,515	40–48
1,375	12,095	16,713	705	8,733	545	–	73,115	49
2,131	954	928	1,660	6,321	1,011	–	43,152	50–51
14,066	3,244	2,033	5,297	10,892	1,598	–	107,447	52–57,59
1,980	2,741	932	2,562	24,050	2,178	–	88,872	58
813	905	230	703	2,701	196	–	16,766	60–64,66,67
4,025	1,137	5,114	15,200	9,992	2,255	–	161,634	65
1,259	1,671	2,139	2,144	18,577	938	–	53,385	70
2,727	612	1,347	4,433	24,993	2,358	–	121,359	72–79
6,429	23,988	4,442	4,406	23,693	3,324	–	180,648	80
7,117	10,264	6,108	8,361	26,095	3,866	–	193,702	82
723	82	716	619	3,471	552	–	24,574	81,83,84
2,289	248	898	1,746	8,224	837	–	53,411	86,88,89
1,240	7,848	2,213	5,708	19,565	2,334	–	94,617	91–97
17,317	137	217	9,277	15,332	135	–	56,662	99
155,900	195,160	891,127	63,821	61,338	35,501	81,091	2,385,695	
361,484	**509,742**	**2,485,584**	**208,593**	**647,877**	**159,499**	**83,321**	**8,106,029**	

APPENDIX D

UNITED STATES GAS CONSUMPTION BY CLASS OF SERVICE, 1973-1983

(MMCF AT 1000 BTU PER CUBIC FOOT)

	Firm			Electric Utilities for Power Generation		Interruptible					
Year	Residential	Commercial	Industrial	Firm	Interruptible	Commercial	Industrial	Other	Total Excluding Field Use	Field Use	Total Consumption
1973[R]	4,982,530	2,248,382	6,215,564	2,104,525	1,546,797	a	2,778,399	1,451,075	21,327,272	1,527,000	22,854,272
1974[R]	4,887,109	2,215,152	6,445,394	2,186,974	1,254,431	295,002	2,258,365	1,364,949	20,907,376	1,513,000	22,420,376
1975[R]	4,981,448	2,415,713	5,116,697	2,025,981	1,024,480	271,223	1,935,675	1,173,759	18,944,976	1,426,000	20,370,976
1976[R]	5,090,126	2,536,585	5,334,144	2,106,027	956,247	270,359	1,846,102	1,243,448	19,383,038	1,667,000	21,050,038
1977[R]	4,090,373	2,463,206	5,019,752	2,017,471	998,913	222,735	1,651,440	1,167,724	18,450,614	1,694,000	20,144,614
1978[R]	5,132,207	2,746,861	6,486,614	2,926,048	b	b	b	1,304,150	18,595,880	1,679,000	20,274,880
1979[R]	5,144,003	2,770,674	6,973,202	3,274,967	b	b	b	1,233,424	19,396,270	1,530,000	20,926,270
1980[R]	4,868,509	2,363,209	5,167,578	2,161,516	1,430,447	247,205	1,967,741	1,354,737	19,560,942	1,053,000	20,613,942
1981[R]	4,654,258	2,240,388	5,026,609	2,142,754	1,632,357	249,760	2,001,333	1,350,019	19,297,478	953,000	20,250,478
1982[R]	4,708,934	2,303,029	4,045,749	1,927,775	1,346,773	270,952	1,655,883	1,141,246	17,400,341	1,140,000	18,540,341
1983	4,429,538	2,179,757	3,763,706	1,721,185	1,294,767	258,656	1,903,910	1,180,978	16,732,497	1,024,000	17,756,497

a. Included in industrial interruptible.

b. In 1978 and 1979, firm and interruptible service were not measured individually; therefore all consumption is included under firm for each class of service.

R—Revised.

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